

Carter Sanford Component Plant 298 Harvey Faulk Rd Sanford, NC 27332

Phone #:919-775-1450

# Builder: David Weekley Homes

# Model: B328 A CP GRH - 1004 Serenity

# THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.

2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.

3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.

4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.

5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.

6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.

7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.

8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death. 9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

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![](_page_1_Figure_3.jpeg)

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Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	A01	Common Supported Gable	1	1	Job Reference (optional)	174832120

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:40 ID:\_6rcl.ElwA7tnIXY?wa67GkyzB5f.RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

![](_page_2_Figure_3.jpeg)

Plate Offsets (X, Y): [2:0-2-8,0-0-5], [15:0-3-8,Edge]

Loading		(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.12	Horz(CT)	0.00	15	n/a	n/a		
BCLL		0.0*	Code	IRC202	1/TPI2014	Matrix-MSH								
BCDL		10.0											Weight: 139 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS WEDGE SLIDER BRACING TOP CHORD	2x4 SP N 2x4 SP N 2x4 SP N Right: 2x4 Left 2x4 S Structural 6-0-0 oc r	o.2 o.2 o.3 I SP No.3 SP No.3 1 I wood shea purlins.	I-6-0 athing directly applied	BC W or	DT CHORD	2-27=-23/89, 26-27: 24-25=-23/89, 23-2: 21-22=-23/89, 19-2: 17-18=-23/89, 16-1: 9-22=-113/15, 8-23: 6-25=-135/78, 5-26: 10-21=-205/75, 11- 12-18=-136/78, 13- 14-16=-142/127	=-23/89 1=-23/8 1=-23/8 =-23/8 =-205/7 =-125/7 19=-18 17=-12	9, 25-26=-23/8 19, 22-23=-23, 19, 18-19=-23, 19, 15-16=-23, 5, 7-24=-188 12, 4-27=-134, 8/79, 2/73,	39, /89, /89, /89 /79, /110,	10) Thi cho 11) * T on 3-0 cho 12) Pro bea 2, 4	s truss h ord live lo his truss the botto 6-00 tall ord and a ovide med aring plat 45 lb uplit	as bee ad nor has be m cho by 2-0 ny oth chanic e capa ft at joi	en designed for a neoncurrent with een designed for rd in all areas wh 0-00 wide will fit er members. al connection (by able of withstandi nt 23, 44 lb uplifit	10.0 psf bottom any other live loads. a live load of 20.0psf iere a rectangle between the bottom v others) of truss to ing 13 lb uplift at joint at joint 24, 46 lb uplift
BOT CHORD	Rigid ceil	Rigid ceiling directly applied or 10-0-0 oc or			DTES		h		_	at j 43	oint 25, 3 Ib unlift a	36 lb uj it ioint	plift at joint 26, 7 21_45 lb unlift at	7 lb uplift at joint 27,
REACTIONS	Max Horiz Max Uplift	2=24-6-0, 17=24-6-0 21=24-6-0 27=24-6-0 2=109 (LC 2=-13 (LC 17=-36 (LI 19=-45 (LI 23=-45 (LI 23=-45 (LI 23=-45 (LI 23=-46 (LI 27=-77 (LI 2=149 (LC	15=24-6-0, 16=24-6-0, 18=24-6-0, 19=24-6, 23=24-6-0, 23=24-6, 25=24-6-0, 26=24-6, 25=24-6-0, 26=24-6, 25=24-6-0, 26=24-6, 25=24-6-0, 26=24-6, 25=24-6-0, 26=24, 10, 15, 16=-71 (LC 15), 21=-43 (LC 15), 21=-43 (LC 15), 21=-43 (LC 14), 24=-44 (LC 14), 24=-44 (LC 14), 26=-36 (LC 14), 21+0, 26=-36 (LC 14), 21+0, 25=-36 (LC 1), 15=88 (LC 1), 25=24-60, 25=25	), -0, 2) -0, -0, -0, , ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	Vind: ASCE Vasd=103m II; Exp 8; Er and C-C Co to 21-6-0, C left and righ exposed;C-1 reactions sh DOL=1.60 Truss design only. For st	E 7-16; Vult=130mpt ph; TCDL=6.0psf; B hclosed; MWFRS (er mer(3E) -0-10-8 to 2 rner(3R) 9-2-2 to 15 orner(3R) 9-2-2 to 15 orner(3E) 21-6-0 to t exposed ; end verti C for members and f iown; Lumber DOL= ned for wind loads in uds exposed to wind rd Industry Gable F	a (3-sec CDL=6 hvelope 2-2-2, E 24-6-0 cal left forces & 1.60 pl h the pla I (norm	sond gust) .0psf; h=25ft; ) exterior zoro :xterior(2N) 2- xterior(2N) 15 zone; cantilev and right & MWFRS for ate grip ane of the tru; at to the face; a sa anolical	Cat. ne -2-2 5-2-2 ver ss ), bla	joir 13 LOAD	nt 18, 36 Ib uplift a CASE(S)	lb uplif it joint ) Star	t at joint 17, 71 lt 2. ndard	puplift at joint 16 and
FORCES TOP CHORD	(lb) - Max Tension 1-2=0/23, 5-6=-66/7 8-9=-89/1 11-12=-64 14-15=-7	16=197 (L 18=178 (L 21=245 (L 23=245 (L 25=176 (L 27=171 (L imum Com 2-4=-117/4 9, 6-7=-64/ 91, 9-10=-{ 4/101, 12-1 7/23	C 37), 17=150 (LC 1) C 22), 19=228 (LC 22 C 22), 22=153 (LC 28 C 21), 24=228 (LC 21 C 21), 26=157 (LC 1) C 36) pression/Maximum 49, 4-5=-87/56, '102, 7-8=-75/147, 89/191, 10-11=-75/14' 3=-51/55, 13-14=-59/	, 2), 4) 1), 5) 7, 5) 7, 7) 17, 7) 9)	see stantaan or consult qi TCLL: ASCI Plate DOL= DOL=1.15); Cs=1.00; CC Unbalanced design. This truss hi load of 12.0 overhangs r All plates ar Gable requi Gable studs	ualified building desi = 7-16; Pr=20.0 psf (L Is=1.0; Rough Cat E =1.10 snow loads have be as been designed fo psf or 1.00 times fla ion-concurrent with e 2x4 MT20 unless of res continuous botto spaced at 2-0-0 oc.	gner as (roof LL um DC 3; Fully een cor r great t roof k other liv otherwi m chor	is as applications as applications as applications as a per ANSI/TF :: Lum DOL=' DL=1.15 Plate Exp.; Ce=0.9 isidered for the er of min roof bad of 20.0 ps re loads. se indicated. d bearing.	ble, PI 1. 1.15 ; ); his live sf on		Manna and and and and and and and and and		SEA 0363	L 22 ILBERTIN

July 11,2025

Page: 1

![](_page_2_Picture_7.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSUTP11 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcaccomponents.com)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	A02	Common	9	1	Job Reference (optional)	174832121

2)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri. Jul 11 07:18:41

Page: 1

![](_page_3_Figure_4.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

G mm July 11,2025

![](_page_3_Picture_7.jpeg)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	A04	Common	6	1	Job Reference (optional)	174832122

TCDL

BCLL

BCDL

WEBS

WEBS

WEBS

1)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri. Jul 11 07:18:41 ID:1N5k5UiLgOv7p9PHKp3jFOyzB70-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

![](_page_4_Figure_4.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

![](_page_4_Picture_6.jpeg)

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	A04A	Common	4	1	Job Reference (optional)	174832123

1)

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Jul 11 07:18:42 ID:1N5k5UiLgOv7p9PHKp3jFOyzB70-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_5_Figure_4.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

![](_page_5_Picture_6.jpeg)

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	A05	Half Hip	1	1	Job Reference (optional)	174832124

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:42 ID:N\_FUI7kAVpqTDsHve?dz?XyzB8G-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

![](_page_6_Figure_4.jpeg)

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	A06	Half Hip	1	1	Job Reference (optional)	174832125

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:42 ID:8\_hfrEPsdpZA5ttv6Y9sy2yzB8g-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

![](_page_7_Figure_3.jpeg)

I	8-0-10	15-10-0	24-6-0	
Γ	8-0-10	7-9-6	8-8-0	

#### Scale = 1:49 Plate Offsets (X, Y): [2:0-3-13,0-0-1], [5:0-3-0,0-2-0], [9:0-4-0,0-3-0]

	(7, 1). [2:0 0 10,0 0 1]	], [0:0 0 0,0 2 0], [0:	0 1 0,0 0 0	<b>'</b> 1										
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2021	1/TPI2014	CSI TC BC WB Matrix-MSH	1.00 0.89 0.65	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.19 -0.34 0.05	(loc) 8-9 8-9 8	l/defl >999 >851 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 134 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS FORCES TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Left 2x4 SP No.3 1 Structural wood shea 3-9-14 oc purlins, ex 2-0-0 oc purlins (2-2: Rigid ceiling directly bracing. 1 Row at midpt (size) 2=0-5-8, 8 Max Horiz 2=211 (LC Max Uplift 2=-132 (LC Max Uplift 2=-132 (LC Max Grav 2=1164 (L (lb) - Maximum Com Tension 1-2=0/23, 2-4=-1992 5-6=-1333/124, 6-7=	I-6-0 athing directly applie xcept end verticals, -0 max.): 5-7. applied or 10-0-0 or 6-8 3=0-3-8 C 14), 8=-136 (LC 1 C 14), 8=-136 (LC 1 C 40), 8=1240 (LC pression/Maximum /217, 4-5=-1769/200 -32/2, 7-8=-253/76	3) 4) 5) ed or 6) and 7) c 8) 1) 39) 9) 6, LC	Unbalanced design. This truss ha load of 12.0 overhangs n Provide aded This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar One H2.5A S recommende UPLIFT at jt( and does no Graphical pu or the orienta bottom chord	snow loads have to show loads have to solve the second state of the psf or 1.00 times fit on-concurrent with quate drainage to p is been designed ad nonconcurrent was been designed ad nonconcurrent was been designed an chord in all areas by 2-00-00 wide wi by other members, Simpson Strong-Tie do to connect truss s) 8 and 2. This co t consider lateral for rin representation ation of the purlin a d. Standard	been cor for great at roof lik or at roof lik or a 10. with any I for a liv s where II fit betv with BC e conne to bear onnectio orces. does no along the	hsidered for t er of min root bad of 20.0 p ve loads. water pondin D ps bottom other live loa e load of 20.1 a rectangle veen the bott DL = 10.0ps ctors ing walls due n is for uplift bt depict the s e top and/or	his f live sf on g. ads. Opsf om f. to only size				Weight. 104 hb	11 - 20/8	
BOT CHORD WEBS 1) Wind: AS Vasd=100 II; Exp B; and C-C I to 6-5-15, 14-11-12 end vertio MVFRS 1 grip DOL= 2) TCLL: AS	2-10=-325/1770, 8-1 5-10=-38/622, 4-10= 6-9=0/523, 6-8=-156 CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; BC Enclosed; MWFRS (en Exterior(2E) -0-10-8 to 2 Exterior(2R) 6-5-15 to to 21-4-4, Exterior(2E) : al left exposed; C-C for for reactions shown; Lui =1.60 CE 7-16; Pr=20.0 psf (r	0=-203/1322 -414/163, 5-9=-226, 3/173 (3-second gust) CDL=6.0psf; h=25ft; velope) exterior zor 2-1-8, Interior (1) 2- 14-11-12, Interior (1) 14-11-12, Interior (1) 14-11-12, Interior (1) 14-11-12, Interior (1) 14-11-12, Interior (1) members and force mber DOL=1.60 pla roof LL: Lum DOL= <sup>2</sup>	/124, Cat. he 1-8 1) ne; s & te 1.15							Van Internet		SEA 0363		. Norman

 TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

July 11,2025

Page: 1

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![](_page_7_Picture_10.jpeg)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	A07	Half Hip Girder	1	1	Job Reference (optional)	174832126

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:42 ID:LxL4nxeDZSif7glvCyYAAlyzBCF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

818 Soundside Road

Edenton, NC 27932

![](_page_8_Figure_4.jpeg)

WARNING - Verity design parameters and READ NOTES ON THIS AND INCLODED MITER REFERENCE PAGE MIT-4/3 rev. 1/2/20/3 BEFORE USE. Design valid for use only with MITeR's connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent building of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Crieria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	B01	Monopitch Supported Gable	1	1	Job Reference (optional)	174832127

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:43 ID:pRYBEe4gu7lwx\_7UFLIIXlyzBJR-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_9_Figure_5.jpeg)

#### Scale = 1:71.4

# Plate Offsets (X, Y): [25:0-3-11,0-1-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202 <sup>-</sup>	1/TPI2014	<b>CSI</b> TC BC WB Matrix-MR	0.29 0.19 0.15	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a -0.02	(loc) - - 13	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 152 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS DTHERS BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. 1 Row at midpt (size) 13=20-6-1 16=20-6-1 23=20-6-1 Max Horiz 25=373 (I) Max Uplift 13=-11 (L) 15=-41 (L) 15=-41 (L) 15=-41 (L) 24=-171 (L) 24=-171 (L) 24=-171 (L) 24=202 (I) (19=161 (L) 24=202	t* 12-14:2x4 SP No.2 athing directly applied cept end verticals. applied or 10-0-0 oc 12-14, 11-15, 10-16 0, 14=20-6-0, 15=20-1 0, 17=20-6-0, 22=20-1 0, 17=20-6-0, 22=20-1 0, 24=20-6-0, 25=20-1 C 14), 14=-16 (LC 14 C 14), 16=-45 (LC 14 C 14), 16=-45 (LC 14 C 14), 18=-44 (LC 14 C 14), 21=-41 (LC 14 C 14), 21=-41 (LC 14 C 14), 23=-5 (LC 14) LC 14) C 20), 14=83 (LC 20), LC 20), 14=83 (LC 20), LC 20), 14=83 (LC 20), LC 20), 21=159 (LC 1 C 20), 21=159 (LC 1 C 20), 23=147 (LC 2 LC 1), 25=253 (LC 14) topression/Maximum 492/192, 2-3=-389/18 306/123, 5-6=-260/10 67/69, 9-10=-121/52, 2=-45/22, 12-13=-7/9,	BC 2. Wi d or 10 5-0, 5-0, 5-0, 5-0, 5-0, 5-0, (), 2) (), 3) (0), 4) (), 3) (0), 4) (0), 5) (0), 5) (0), 5) (0), 5) (0), 6) (1) (1) (1) (1) (1) (1) (1) (1	DT CHORD 2 2 2 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	44-25=-1/0, 23-24=- 14-22=-1/0, 19-21=- 7-18=-1/0, 19-21=- 7-18=-1/0, 16-17=- 4-15=-1/0 1-15=-194/79, 10- 1-17=-137/79, 7-18:- -21=-126/78, 4-22:- 2-24=-172/204 7-16; Vult=130mph h; TCDL=6.0psf; B closed; MWFRS (er ner(3E) 0-1-12 to 3 6-0 zone;C-C for me eactions shown; Lu 50 ed for wind loads ir ds exposed to wind 1 Industry Gable En alified building desi 7-16; Pr=20.0 psf (Li s=1.0; Rough Cat E 1.10 snow loads have be 2x4 MT20 unless of s lateral movement spaced at 2-0-0 oc. s been designed for d nonconcurrent we as been designed for n chord in all areas y 2-00-00 wide will y other members.	1/0, 222 1/0, 18 1/0, 15 1/0, 15 1/0, 15 1/0, 15 1/0, 15 1/0, 15 1/0, 15 1/0, 16 1/0, 15 1/0,	-23=-1/0, -19=-1/0, -16=-1/0, 3/81, 0, 6-19=-127 6, 3-23=-113 0.0psf; h=25ft ) exterior zon Exterior (2N) s and forces DOL=1.60 pla ane of the tru al to the face Is as applica s per ANSI/TI L Lum DOL= UL=1.15 Plate Exp.; Ce=0.9 isidered for the se indicated. d bearing. e or securely iagonal web) 0 psf bottom other live load e load of 20.0 a rectangle reen the botth	7/80, 5/53, 5/53, (53, 6 8 8 8 1 1.15 9 9; his 1.15 9 9; his om	11) Bea usin desi 12) Prov bea 13, uplif 18, uplif LOAD C	ring at jeg g ANSI/ giner sh vide mea- ring plat 16 lb up t at joint 24. <b>ASE(S</b> )	pint(s) pint(s) puld ve chanica e capae lift at jc lift at jc 22, 5 Star	13 considers pai angle to grain for arify capacity of I al connection (by ible of withstandi bint 14, 41 lb upli 3 lb uplift at joint 2 indard MARCA SEA 0363	Rollel to grain value mula. Building pearing surface. rothers) of truss to ng 11 lb uplift at joint ft at joint 15, 45 lb 17, 44 lb uplift at joint ft at joint 21, 53 lb 3 and 171 lb uplift at	

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818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	B02	Monopitch	9	1	Job Reference (optional)	174832128

14-3-9

6-11-3

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:43 ID:DTBTk2iEBbrKjDFXxKE1mCyzBJw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

20-6-0

Page: 1

![](_page_10_Figure_5.jpeg)

#### Scale = 1:74.6

# Plate Offsets (X, Y): [1:0-4-1,Edge], [4:0-3-0,0-3-4], [9:0-5-0,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2021/TPI2014	CSI TC BC WB Matrix-MSH	0.72 0.91 0.43	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.48 -0.73 0.02	(loc) 8-9 8-9 8	l/defl >504 >331 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 115 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.1 2x4 SP No.3 *Excep Left 2x4 SP No.3 - 1 Structural wood shea 4-8-11 oc purlins, ea Rigid ceiling directly bracing. 1 Row at midpt (size) 1= Mecha Max Horiz 1=375 (LC Max Uplift 1=-27 (LC Max Grav 1=898 (LC (lb) - Maximum Com Tension	t* 5-8:2x4 SP No.2 1-6-0 athing directly applie xcept end verticals. applied or 8-3-12 oc 5-8, 4-8 inical, 8= Mechanica C 14) 14), 8=-232 (LC 14) C 5), 8=1065 (LC 5) ipression/Maximum	5) * This trus on the bo 3-06-00 ta chord and 6) Refer to g 7) Provide n 8 and 27 5 <b>LOAD CASE</b> 1	s has been designer tom chord in all area ill by 2-00-00 wide w any other members irder(s) for truss to tr echanical connectio ate capable of withs b uplift at joint 1. <b>S)</b> Standard	d for a liv as where vill fit betw s, with BC russ conr n (by oth tanding 2	e load of 20. a rectangle veen the bott iDL = 10.0ps nections. ers) of truss 32 lb uplift a	Opsf f. to t joint						
BOT CHORD	5-8=-271/90 1-8=-408/1298, 7-8=	≡0/0	2										
	4-0=-923/200, 4-9=-	51/075, 3-9=-408/22	۷									1111	
<ol> <li>Wind: ASC Vasd=103</li> <li>Exp B; I and C-C E 17-6-0, Ex members a Lumber Di</li> <li>TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; (</li> <li>Unbalance design.</li> <li>This truss</li> </ol>	CE 7-16; Vult=130mph mph; TCDL=6.0psf; Bd Enclosed; MWFRS (en exterior(2E) 0-0-0 to 3-0 terior(2E) 17-6-0 to 20 and forces & MWFRS OL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (Li :=1.15); Pf=20.0 psf (Li ); Is=1.0; Rough Cat B Ct=1.10 ed snow loads have be has been designed for	(3-second gust) CDL=6.0psf; h=25ft; ivelope) exterior zon: 0-0, Interior (1) 3-0-0 -6-0 zone;C-C for for reactions shown; iL=1.60 um DOL=1.15 Plate b; Fully Exp.; Ce=0.9; een considered for this r a 10.0 psf bottom	Cat. e to .15 ;						Willing		SEA 0363	ROCIAL INTERNET	

- DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

mmm

July 11,2025

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![](_page_10_Picture_13.jpeg)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	B03	Monopitch	2	1	Job Reference (optional)	174832129

14-3-9

6-11-3

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:43 ID:KLIp2cdP9FdyXYyQD889fRyzBLJ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

20-6-0

-

Page: 1

![](_page_11_Figure_4.jpeg)

#### Scale = 1:77.9

#### Plate Offsets (X, Y): [1:0-4-1,Edge], [4:0-3-0,0-3-4], [9:0-5-0,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2021/TPI2014	in -0.48 -0.73 0.02	(loc) 8-9 8-9 8	l/defl >504 >331 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 115 lb	<b>GRIP</b> 244/190 FT = 20%				
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD WEBS REACTIONS (S M FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Wind: ASCE Vasd=103m II; Exp B; Er and C-C Ext In T-6-0, Exte left exposed reactions sh DOL=1.60 2) TCLL: ASCE Plate DOL= DOL=1.15); Cs=1.00; Ct 3) Unbalanced design.	2x4 SP No.2 2x4 SP No.1 2x4 SP No.3 *Excep Left 2x4 SP No.3 1 Structural wood shea 4-8-11 oc purlins, er Rigid ceiling directly bracing. 1 Row at midpt size) 1=0-5-8, 8 fax Horiz 1=375 (LC fax Uplift 1=-27 (LC fax Grav 1=898 (LC (lb) - Maximum Com Tension 1-3=-1402/34, 3-5=- 5-8=-271/90 1-8=-408/1298, 7-8= 4-8=-923/258, 4-9=- 5-16; Vult=130mph ph; TCDL=6.0psf; BC closed; MWFRS (en terior(2E) 17-6-0 to 20 ;C-C for members ar own; Lumber DOL=1 E 7-16; Pr=20.0 psf (tr 1.15); Pf=20.0 psf (tr)1.15]; Pf	t* 5-8:2x4 SP No.2 I-6-0 athing directly applied xcept end verticals. applied or 8-3-12 oc 5-8, 4-8 B= Mechanical 14) 14), 8=-232 (LC 14) C 5), 8=1065 (LC 5) pression/Maximum 1185/96, 5-6=-12/0, 60/0 51/875, 3-9=-408/222 (3-second gust) CDL=6.0psf; h=25ft; 0 velope) exterior zone 0-0, Interior (1) 3-0-0 6-0 zone; end vertic nd forces & MWFRS I.60 plate grip roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; ven considered for this	<ul> <li>4) This truss chord live</li> <li>5) * This truss on the bo 3-06-00 trust chord and</li> <li>d or 7) Provide n bearing p</li> <li>8) One H2.5 recomme UPLIFT a does not</li> <li>LOAD CASE</li> </ul>	has been designed i load nonconcurrent is has been designed tom chord in all area all by 2-00-00 wide w any other members, irder(s) for truss to tr techanical connection ate capable of withst A Simpson Strong-Ti nded to connect truss t jt(s) 1. This connect consider lateral force <b>S)</b> Standard	for a 10. with any d for a liv is where ill fit betv, with BC russ conr n (by oth tanding 2 ie conne s to bear tion is for s.	D psf bottom other live loa e load of 20. a rectangle veen the bott DL = 10.0ps lections. ers) of truss 32 lb uplift a ctors ing walls due uplift only a	ads. Opsf om f. to t joint				SEA 0363	RO IN L 22 IL BERITU	Manual Contraction

July 11,2025

![](_page_11_Picture_9.jpeg)

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Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	B04	Monopitch	3	1	Job Reference (optional)	174832130

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:43 ID:uKtrJGkYuK\_5qa1S4NLaLYyzBNI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

F

![](_page_12_Figure_5.jpeg)

#### Scale = 1:71.1 Plate Offsets (X, Y): [2:0-3-13.0-0-1]. [11:0-5-0.0-3-0]

	(7, 1). [2.0-3-13,0-0-1]	], [11:0-5-0,0-5-0]												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2021	/TPI2014	CSI TC BC WB Matrix-MSH	0.72 0.91 0.43	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.48 -0.73 0.02	(loc) 10-11 10-11 10	l/defl >504 >330 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 117 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD BOT CHORD BRACING TOP CHORD BOT CHORD BOT CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.1 2x4 SP No.3 *Excep Left 2x4 SP No.3 *Excep Left 2x4 SP No.3 *- Structural wood she 4-10-6 oc purlins, e Rigid ceiling directly bracing. 1 Row at midpt (size) 2=0-5-8, 1 Max Horiz 2=388 (LC Max Uplift 2=-43 (LC Max Grav 2=942 (LC (Ib) - Maximum Com Tension 1-2=0/22, 2-4=-1400 6-7=-155/95, 7-8=-1: 2-10=-399/1296, 9-1 6-10=-919/258, 6-11 CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; B4 Enclosed; MWFRS (en Exterior(2E) -0-10-0 to : Exterior(2E) -0-10-0 to : Exterior(2E) -17-6-0 to ft exposed; C-C for mer or reactions shown; Lu =1.15); Pf=20.0 psf (L =1.15); Pf=20.0 psf (L CE 1.10 ed snow loads have be	t* 7-10:2x4 SP No.2 1-6-0 athing directly applie xcept end verticals. applied or 8-3-12 oc 7-10, 6-10 10= Mechanical C 14) 14), 10=-232 (LC 1/2 C 1/2) 14), 10=-232 (LC 1/2 C 1/2) 10=1071 (LC 5) pression/Maximum 1/34, 4-6=-1183/25, 2/0, 7-10=-269/88 0=/0/0 =-52/880, 4-11=-411 (3-second gust) CDL=6.0psf; h=25ft; ivelope) exterior zon 2-2-0, Interior (1) 2-2 20-6-0 zone; end mbers and forces & mber DOL=1.60 plat troof LL: Lum DOL=1 um DOL=1.15 Plate B; Fully Exp.; Ce=0.9; een considered for thi	4) 5) 6) d or 7) 8) 9) LO /2224 Cat. e -0 e .15	This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall l chord and ar Refer to gird Provide mec bearing plate 10. One H2.5A S recommende UPLIFT at jt( does not cor <b>AD CASE(S)</b>	Is been designed fi psf or 1.00 times fl on-concurrent with is been designed fi ad nonconcurrent v has been designed in chord in all areas by 2-00-00 wide will by other members, er(s) for truss to tru hanical connection a capable of withsta Simpson Strong-Tie d to connect truss (s) 2. This connecti isider lateral forces Standard	or great at roof k other liv or a 10.0 with any for a liv s where Il fit betw with BC uss conne- to bear to bear to bear to bear to a liv s.	er of min roof bad of 20.0 p ve loads. D psf bottom other live loa e load of 20.1 a rectangle veen the bott DL = 10.0psi 22 lb uplift at ctors ing walls due r uplift only at	f live sf on dds. Opsf om f. to to to nd				SEA 0363	RO E 22 E.R. A	Wannan

July 11,2025

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A MITEK Affiliate 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	C01	Common Supported Gable	1	1	Job Reference (optional)	174832131

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:43 ID:y?IVUHJnnTWv5Ac?yd58OGyzBFF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

![](_page_13_Figure_4.jpeg)

Scale = 1:59.1

# Plate Offsets (X, Y): [8:0-2-8,Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202	1/TPI2014	CSI TC BC WB Matrix-MR	0.20 0.12 0.18	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 16	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 142 lb	<b>GRIP</b> 244/190 FT = 20	1
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N Structura 6-0-0 oc Rigid ceil bracing.	o.2 o.3 o.3 I wood shea purlins, exc ing directly	athing directly applie cept end verticals. applied or 6-0-0 oc	B d or W	OT CHORD 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	27-28=-113/157, 26 5-26=-113/157, 24 23-24=-113/157, 21 20-21=-113/157, 19 8-19=-113/157, 17 6-17=-113/157 -23=-175/10, 9-21= 5-25=-147/96, 4-26= 5-27=-133/155, 10-2 1-19=-147/96, 12-1 3-17=-124/148	-27=-1 -25=-1 -20=-1 -18=-1 -18=-1 -175/6 156/1 20=-21 8=-15	13/157, 13/157, 13/157, 13/157, 13/157, 13/157, i, 6-24=-219/1 00, 9/128, 6/100,	126,	9) Trus brac 10) Gat 11) This cho 12) * Th on t 3-00 cho 13) Pro bea	ss to be ced agai ole studs truss ha rd live lo nis truss he botto 5-00 tall rd and a vide med ring plat	fully sh nst late space as bee ad nor has be m cho by 2-0 ny oth chanice e capa	heathed from on eral movement ( dd at 2-0-0 oc. en designed for a concurrent with een designed for rd in all areas wi 0-00 wide will fit er members. al connection (b bibe of withstand	e face or s i.e. diagona i 10.0 psf b any other a live loac here a rect between t y others) o ling 161 lb	ecurely al web). pottom live loads. d of 20.0psf angle he bottom f truss to uplift at joint
REACTIONS	Max Horiz Max Uplift Max Grav	16=19-8-C 19=19-8-C 23=19-8-C 26=19-8-C 28=-236 (l) 16=-116 (l) 18=-68 (L) 20=-103 (l) 25=-75 (L) 27=-225 (l) 16=230 (L) 16=230 (L) 20=260 (L) 23=210 (L) 25=-175 (L) 27=219 (L)	7-23, 9-21 0, 17=19-8-0, 18=19- 0, 20=19-8-0, 21=19- 0, 22=19-8-0, 25=19- 0, 27=19-8-0, 28=19- LC 12) LC 13), 17=-212 (LC C 15), 17=-212 (LC C 15), 17=-74 (LC 16 LC 15), 24=-101 (LC C 14), 26=-67 (LC 14), 26=-67 (LC 14), 26=-67 (LC 2 C 26), 19=-175 (LC 2 C 22), 21=210 (LC 2 C 21), 24=-200 (LC 2 C 21), 26=174 (LC 2 C 12), 28=252 (LC 14)	8-0, <b>N</b> 8-0, 1) 8-0, 2) (15), (14), (14), (14), (14), (14), (12) (13), (12), (12), (12), (12), (12), (13), (12),	OTES Unbalanced this design. Wind: ASCE Vasd=103mp II; Exp B; End and C-C Exte to 6-10-0, Ex 12-7-12 to 17 end vertical li forces & MW DOL=1.60 pli Truss design only. For stu see Standarc or consult qu	roof live loads have 7-16; Vult=130mph bh; TCDL=6.0psf; Bi closed; MWFRS (er erior(2E) -0-10-8 to terior(2R) 6-10-0 to '-6-8, Exterior(2E) 1 eft and right expose FRS for reactions s ate grip DOL=1.60 ed for wind loads in ds exposed to wind l Industry Gable En alified building desi	been (3-sec CDL=6 velope 2-1-8, 12-7-' 7-6-8 d;C-C hown; the pl (norm d Deta gner a:	considered fo cond gust) .0psf; h=25ft; ) exterior zor Interior (1) 2- 2, Interior (1) io 20-6-8 zon- for members Lumber ane of the tru: al to the face is as applical s per ANSI/TF	r ; Cat. ne 1-8 ) e; and ss ), ble, PI 1.	28, upli join Ib u LOAD (	116 lb u ft at joint t 27, 103 plift at jo CASE(S)	plift at 25, 6 lb upl int 18 Star	joint 16, 101 lb u 7 lb uplift at joint ift at joint 20, 74 and 212 lb uplift ndard	iplift at join 26, 225 lb lb uplift at at joint 17.	It 24, 75 lb uplift at joint 19, 68
FORCES TOP CHORD	(lb) - Max Tension 2-28=-17 3-4=-134, 6-7=-109, 9-10=-10 12-13=-1 14-16=-1	aimum Com 3/105, 1-2= /128, 4-5=- /182, 7-8=-{ 9/171, 10-1 16/98, 13-1 56/74	pression/Maximum 0/39, 2-3=-237/179, 105/102, 5-6=-84/12; 85/129, 8-9=-85/129, 1=-64/106, 11-12=-7 4=-218/141, 14-15=(	2, 5) ;9/73, 6) ()/39, 6) 7) 8)	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 p overhangs no All plates are Gable require	7-16; Pf=20.0 psf ( .15); Pf=20.0 psf (L s=1.0; Rough Cat E :1.10 snow loads have be s been designed for posf or 1.00 times flaton-concurrent with of 2x4 MT20 unless c es continuous botto	roof Ll um DC 3; Fully een cor r great t roof le other li other wi m chor	:: Lum DOL=: DL=1.15 Plate Exp.; Ce=0.§ asidered for th er of min roof boad of 20.0 ps ve loads. se indicated. d bearing.	1.15 e); his live sf on		11111111111		SEA 0363	EER.	25

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ENGINEERING BY REPRENCED A MiTek Atfiliate 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	C02	Common	6	1	Job Reference (optional)	174832132

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:43 ID:veOhTnYiIJvCs5ZfZ6xbfGyzBEy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_14_Figure_4.jpeg)

#### Scale = 1:60.9

## Plate Offsets (X, Y): [9:0-4-0,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202	1/TPI2014	CSI TC BC WB Matrix-MSH	0.50 0.90 0.59	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.17 -0.35 0.02	(loc) 8-9 8-9 8	l/defl >999 >669 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 124 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exc Rigid ceiling directly bracing. (size) 8=0-5-8, 1 Max Horiz 10=-236 (I Max Uplift 8=-73 (LC Max Grav 8=884 (LC	athing directly applie cept end verticals. applied or 10-0-0 or 0=0-5-8 LC 12) 15), 10=-73 (LC 14 222), 10=884 (LC 2	4) 5) ed or 6) c 7) ) 8) 1)	Unbalanced design. This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall h chord and an One H2.5A & recommende UPLIFT at it	snow loads have b as been designed fi psf or 1.00 times fl on-concurrent with as been designed fad nonconcurrent v has been designed on chord in all areas by 2-00-00 wide wil hy other members. Simpson Strong-Tie ed to connect truss (s) 10 and 8. This c	or great at roof k other lin or a 10. vith any for a liv s where Il fit betw e conne- to bear	er of min roo bad of 20.0 p ve loads. ) psf bottom other live loa e load of 20. a rectangle veen the bott ctors ing walls due on is for upli	this f live ssf on ads. Opsf com e to					
FORCES TOP CHORD BOT CHORD WEBS	(lb) - Maximum Com Tension 1-2=0/39, 2-3=-415/1 4-5=-757/159, 5-6=-3 2-10=-407/144, 6-8= 8-10=-100/652 4-9=-82/568, 5-9=-25	pression/Maximum 131, 3-4=-757/159, 395/131, 6-7=0/39, -394/144 59/212, 3-9=-259/21	L <b>C</b> 2,	and does no	t consider lateral fo Standard	orces.		( only					
NOTES 1) Unbalanc: this desig 2) Wind: ASt Vasd=103 II; Exp B; and C-CE to 6-10-0, 12-10-0 tc end vertice forces & M DOL=1.6( 3) TCLL: AS Plate DOL	3-10=-666/53, 5-8=-6 ed roof live loads have n. CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; BC Enclosed; MWFRS (en Exterior(2E) -0-10-8 to 2 Exterior(2R) 6-10-0 to 0 17-6-8, Exterior(2E) 1 <sup>-</sup> al left and right exposer WFRS for reactions sh 0 plate grip DCL=1.60 CE 7-16; Pr=20.0 psf (l =1 15): Pf=20.0 psf (l	666/53 been considered for (3-second gust) CDL=6.0psf; h=25ft; velope) exterior zon 2-1-8, Interior (1) 2- 12-10-0, Interior (1) 7-6-8 to 20-6-8 zone d;C-C for members hown; Lumber	r Cat. he I-8 e; and							10 - 1111111-		SEA 0363	

- II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-10-0, Exterior(2R) 6-10-0 to 12-10-0, Interior (1) 12-10-0 to 17-6-8, Exterior(2E) 17-6-8 to 20-6-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

![](_page_14_Picture_10.jpeg)

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Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	E01	Common Supported Gable	1	1	Job Reference (optional)	174832133

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:43 ID:x0ypEL3Up0yR9Rp3VsFHJqyzBIA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

![](_page_15_Figure_4.jpeg)

#### Scale = 1:59.8

Plate Offsets (X, Y): [8:0-2-8,Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202	21/TPI2014	<b>CSI</b> TC BC WB Matrix-MSH	0.07 0.09 0.18	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a 0.01	(loc) - - 14	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 127 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS SLIDER BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Left 2x4 SP No.3 1-6-0 Structural wood she 6-0-0 oc purlins. Rigid ceiling directly	1-6-0, Right 2x4 SP N athing directly appliec applied or 10-0-0 oc	B lo.3 V d or	OT CHORD 2 2 1 1 1 1 1 1 2 2 1 1 1 2 1 1 2 0 <b>TES</b>	2-24=-84/227, 23-24 22-23=-84/227, 21-2 9-21=-84/226, 18-1 7-18=-84/226, 16-1 4-16=-84/226 -21=-175/29, 9-19= -23=-142/88, 4-24= 0-18=-211/122, 11- 2-16=-175/134	l=-84/2 22=-84/ 9=-84/ 7=-84/ 175/1 -175/1 -17=-1	27, 227, 226, 226, 2, 6-22=-211 36, 42/88,	I/118,	10) This choi 11) * Th on t 3-06 choi 12) Prov bea 2, 1 joint 101	truss h rd live lo is truss he botto 5-00 tall rd and a vide med ring plat lb uplift 22, 55	as bee ad nor has be m cho by 2-0 ny oth chanic e capa at join b uplif	en designed for a neoncurrent with een designed for rd in all areas wh 0-00 wide will areas wh 0-00 wide will star er members. al connection (by able of withstandi t 14, 3 lb uplift at t at joint 23, 3 lb uplift t 18, 55 lb uplift at	10.0 psf bottom any other live loads. a live load of 20.0psf iere a rectangle between the bottom r others) of truss to ing 22 lb uplift at joint joint 21, 97 lb uplift at lb uplift at joint 24, at joint 17, 138 lb unlift	
REACTIONS	bracing. (size) 2=18-10-1 16=18-10 21=18-10 23=18-10 Max Horiz 2=201 (L0 Max Uplift 2=-22 (L0 16=-138 (L1 22=-97 (L 24=-141 (L1) Max Grav 2=206 (L1) 16=216 (L1) 16=252 (L2) 23=163 (L2) 2	D, 14=18-10-0, -0, 19=18-10-0, -0, 19=18-10-0, -0, 22=18-10-0, -0, 24=18-10-0 C 13) C 10), 14=-1 (LC 11), LC 15), 21=-3 (LC 11 C 14), 23=-55 (LC 14 LC 14) C 27), 14=195 (LC 28) LC 26), 17=163 (LC 22) LC 22), 19=217 (LC 22) LC 22), 22=252 (LC 2) LC 21), 22=252 (LC 2)	5), ), ), 2), 2), 2), 5)	<ul> <li>Unbalanced 1 this design.</li> <li>Wind: ASCE Vasd=103mp II; Exp B; End and C-C Exte to 6-4-4, Exte 12-5-12 to 16 end vertical li forces &amp; MW DOL=1.60 pli</li> <li>Truss design only. For stu see Standarc or consult qu</li> <li>TCLL: ASCE Plate DOL=1</li> </ul>	considered to cond gust) .0psf; h=25ft e) exterior zoi interior (1) 2- linterior (1) 2 to 19-8-0 z for members Lumber ane of the tru al to the face is as applica s per ANSI/TI .: Lum DOL= L=1.15 Platt	; Cat. ne 4-4 cone; and ss p), bble, PI 1. 1.15	at jo	ASE(S)	Star	ndard	Round TY, Too is upint 1 Ib uplift at joint 14.			
FORCES	(lb) - Maximum Com Tension 1-2=0/32, 2-4=-252/ 5-6=-111/67, 6-7=-1 8-9=-89/66, 9-10=-1 11-12=-136/64, 12-7	npression/Maximum 136, 4-5=-154/92, 10/77, 7-8=-89/67, 10/56, 10-11=-92/40, 4=-232/116, 14-15=0	5 6 )/32 7 8 9	<ul> <li>DCL=1.15); 11</li> <li>Cs=1.00; Ct=</li> <li>Unbalanced</li> <li>design.</li> <li>This truss ha load of 12.0 p overhangs nn</li> <li>All plates are</li> <li>Gable required</li> <li>Gable studs st</li> </ul>	s=1.0; Rough Cat E 1.10 snow loads have be s been designed for osf or 1.00 times flat on-concurrent with c 2x4 MT20 unless c es continuous bottor spaced at 2-0-0 oc.	s; Fully een cor r greate t roof lo other liv otherwi m chor	Exp.; Ce=0.9 Insidered for the er of min roof bad of 20.0 p ve loads. se indicated. d bearing.	9; his f live sf on		THE LEVE S			EER. KIN	

July 11,2025

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![](_page_15_Picture_11.jpeg)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	E02	Common Girder	1	2	Job Reference (optional)	174832134

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Jul 11 07:18:44 ID:xqX4xngTohNCmGDs\_3fFtayzBHN-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_16_Figure_5.jpeg)

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![](_page_16_Picture_7.jpeg)

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	EJ4	Jack-Open	9	1	Job Reference (optional)	174832135

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:44 ID:crXu80texbJNcE7reHwwFyyzBEX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

# Page: 1

![](_page_17_Figure_5.jpeg)

4-0-8

Scale = 1:29.9

								· · · · · ·						
Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.36	Vert(LL)	0.02	4-5	>999	240	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.32	Vert(CT)	-0.02	4-5	>999	180		
TCDL		10.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	-0.03	3	n/a	n/a		
BCLL		0.0*	Code	IRC2021/TPI201	4	Matrix-MR								
BCDL		10.0											Weight: 18 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No. 2x4 SP No. 2x6 SP No. Structural v 4-0-8 oc pu Rigid ceilin bracing. (size)	2 2 vood shea irlins, exc g directly 3= Mecha	athing directly applied sept end verticals. applied or 10-0-0 oc nical, 4= Mechanical.	6) * This ti on the I 3-06-00 chord a 7) Bearing d or 8) Refer to 9) Provide bearing 3 and 6 LOAD CAS	russ h bottom tall b ind an gs are g girde mech plate b lb up <b>E(S)</b>	as been designed in chord in all areas y 2-00-00 wide will y other members. assumed to be: , J or(s) for truss to tru- nanical connection capable of withsta lift at joint 4. Standard	for a liv where fit betv loint 5 L uss con (by oth nding 9	e load of 20. a rectangle veen the bott Jser Defined nections. ers) of truss 10 lb uplift at	Opsf tom to joint					
	Max Hariz E	5=0-5-8 5_122 (LC	14)											
	Max I Inlift	S=133 (LC S=-90 (LC	(14) 4 - 6 (1 - 14)											
	Max Grav 3	3=171 (LC	21), 4=71 (LC 7), 5=	=328										
	(	LC 21)	,, (- ,,-											
FORCES	(lb) - Maxin	num Com	pression/Maximum											
	Tension													
TOP CHORD	2-5=-307/9	2, 1-2=0/5	53, 2-3=-144/84											
BOTCHORD	4-5=0/0													
NOTES		120mmh	(2 accord suct)											
<ol> <li>Vanda - 100 Vasda - 100 II; Exp B; and C-C I exposed ; members Lumber D</li> <li>TCLL: AS Plate DOI DOL=1.1! Cs=1.00;</li> <li>Unbalanc design.</li> <li>This truss load of 12 overhang</li> </ol>	Simph; TCDL= Enclosed; MV Exterior(2E) zc; ; end vertical I and forces & DOL=1.60 platt CCE 7-16; Pr=; L=1.15); Pf=2( 5); Is=1.0; Rou Ct=1.10 red snow loads a has been des 2.0 psf or 1.00 s non-concurr	6.0psf; B6 VFRS (en pone; canti eft and rig MWFRS <sup>5</sup> e grip DO 20.0 psf (L 20.0 psf (L 20.0 psf (L 20.0 psf (L 20.0 psf (L 3.0 psf	(Coucher gas) DDL=6.0psf; h=25ft; ( velope) exterior zone lever left and right yht exposed;C-C for for reactions shown; L=1.60 roof LL; Lum DOL=1. ym DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for this greater of min roof li roof load of 20.0 psf ther live loads.	Cat. 9 15 s ve on							M. COLUMN		SEA 0363	ROLUMINUM L 22 EER RUM
5) This truss chord live	s has been des load noncond	signed for current wit	a 10.0 psf bottom th any other live load	s.									A. G	ILBLUM

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818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	EJ34	Jack-Open	2	1	Job Reference (optional)	174832136

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:44 ID:wY4gRT\_LHtvJeN9W1caV\_MyzBD5-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1

![](_page_18_Figure_3.jpeg)

![](_page_18_Figure_4.jpeg)

3x5 🛛

3-4-8

Scale = 1:27.8

Plate Offsets (X, Y): [2:0-2-8,0-0-1]

Loading TCLL (roof) Snow (Pf) TCDL	(psf) 20.0 20.0 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	D1204.4	CSI TC BC WB	0.20 0.16 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.02 0.01	(loc) 5-8 5-8 2	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 244/190	
BCLL BCDL	10.0	Code	IRC2021/11	PI2014	Matrix-MP							Weight: 15 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD SLIDER BRACING TOP CHORD BOT CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD NOTES 1) Wind: AS( Vasd=102 II; Exp B; and C-C E exposed ; members Lumber D 2) TCLL: AS Plate DOL DOL=1.15 Cs=1.00; 3) Unbalanci design. 4) This truss load of 12 overhangs	2x4 SP No.2 2x4 SP No.2 Left 2x4 SP No.3 1 Structural wood shea 3-4-8 oc purlins. Rigid ceiling directly bracing. (size) 2=0-5-8, 4 Mechanic Max Horiz 2=74 (LC Max Uplift 2=-18 (LC Max Grav 2=279 (LC 5=59 (LC (lb) - Maximum Com Tension 1-2=0/36, 2-4=-98/45 2-5=-113/88 CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; BC Enclosed; MWFRS (en Exterior(2E) zone; canti and forces & MWFRS OL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L 5); Is=-1.0; Rough Cat B Ct=1.10 ed snow loads have be has been designed for .0 psf or 1.00 times flat s non-concurrent with c	I-6-0 athing directly applied applied or 10-0-0 oc I= Mechanical, 5= al 14) 14) 14) 14) 14) 14) 14) 14) 14) 14)	5) Ti ct 6) * or 3- or 8) R 9) P br 4. 9) P br 4. 10) O re U U U U toAL	his truss har hord live loa This truss h n the bottom -06-00 tall b hord and an earings are ter to girde trovide mech earing plate one H2.5A S ecommende IPLIFT at jt(s oes not con: <b>D CASE(S)</b>	s been designed fo d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. assumed to be: ., o er(s) for truss to tru- nanical connection capable of withsta impson Strong-Tie d to connect truss s) 2. This connection sider lateral forces Standard	or a 10.0 vith any for a live s where I fit betw Joint 2 L uss conne (by othe anding 4 e connee to beari on is for	<ul> <li>psf bottom other live load e load of 20.1</li> <li>a rectangle veen the bott</li> <li>diser Defined</li> <li>nections.</li> <li>ers) of truss is</li> <li>5 lb uplift at j</li> <li>ctors</li> <li>ng walls due</li> <li>uplift only an</li> </ul>	ads. Opsf om to joint e to nd		(Netronal States)		SEA 0363	ROLL 22 ILBERT	
													C. C	

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent outlapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

![](_page_18_Picture_11.jpeg)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	F01	Common Supported Gable	1	1	Job Reference (optional)	174832137

8-8-0

8-8-0

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:44 ID:blbw4E4\_5X0UgfFVg5xqNryzBV3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

17-4-0

8-8-0

Page: 1

18-2-8

0-10-8

![](_page_19_Figure_4.jpeg)

0-10-8

0-10-8

![](_page_19_Figure_5.jpeg)

Scale = 1:35.9

Plate Offsets (X, Y): [15:0-3-0,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	21/TPI2014	CSI TC BC WB Matrix-MSH	0.08 0.05 0.04	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 10	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 74 lb	<b>GRIP</b> 244/190 FT = 20%	
TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N Structura 6-0-0 oc Rigid ceil bracing. (size)	lo.2 lo.2 lo.3 ll wood shea purlins. ling directly 2=17-2-0,	athing directly applie applied or 10-0-0 oc 10=17-2-0, 12=17-2	ed or 2-0,	<ul> <li>Wind: A203mg</li> <li>Vasd=103mg</li> <li>II; Exp B; En and C-C Cor to 5-8-0, Cor to 15-2-8, Cc left and right exposed;C-C reactions sht DOL=1.60</li> <li>Truss design</li> </ul>	h, TCDL=6.0psf; e closed; MWFRS (e ner(3E) -0-10-8 to ner(3R) 5-8-0 to 11 orner(3E) 15-2-8 to exposed; end veri c for members and own; Lumber DOL=	3CDL=6 envelope 2-1-8, E 1-8-0, E 18-2-8 tical left forces =1.60 pl n the pl	ions gust) iops; h=25ft; exterior zor ixterior(2N) 2 xterior(2N) 11 zone; cantiler and right & MWFRS for ate grip ane of the tru	; Cat. ne -1-8 I-8-0 ver						
	Max Horiz Max Uplift Max Grav	13=17-2-0 16=17-2-0 2=-50 (LC 2=-38 (LC 12=-46 (L 14=-38 (L 17=-30 (L 2=160 (LC 12=249 (L 14=235 (L 16=235 (L 18=249 (L	), 14=17-2-0, 15=17- ), 17=17-2-0, 18=17- ; 19) C 15), 13=-31 (LC 1) C 15), 16=-38 (LC 1- C 10), 18=-49 (LC 1- C 10), 18=-49 (LC 1- C 1), 10=160 (LC 1), C 22), 13=203 (LC 2- C 22), 15=135 (LC 2- C 21), 17=203 (LC 2- C 21)	-2-0, -2-0 ), 1), 4), 4), 4) 22), 22), 21),	<ul> <li>(i) Table design</li> <li>(ii) For stuse standard</li> <li>(iii) TCLL: ASCE</li> <li>Plate DOL=1</li> <li>100L=1.15);</li> <li>Cs=1.00; Ct=</li> <li>Unbalanced</li> <li>design.</li> <li>(iii) This truss hat</li> <li>load of 12:00</li> <li>(iii) Yangaran</li> </ul>	dis exposed to win di ladustry Gable Er lalified building des 7-16; Pr=20.0 psf (15); Pf=20.0 psf (1 ls=1.0; Rough Cat =1.10 snow loads have b ls been designed for psf or 1.00 times fit	d (norm nd Deta signer a: (roof LI Lum DC B; Fully been cor or great at roof le	al to the face ils as applical s per ANSI/Tf :: Lum DOL=: DL=1.15 Plate Exp.; Ce=0.9 asidered for th er of min roof pad of 20.0 p; w loade	), ble, PI 1. 1.15 9; his live sf on				mmm	11117.	
FORCES	(lb) - Max Tension	kimum Com	pression/Maximum	-	7) All plates are	e 2x4 MT20 unless	other II otherwi	se indicated.					"ATH CA	RO	
TOP CHORD	1-2=0/17 4-5=-54/7 7-8=-54/7 10-11=0/	, 2-3=-60/34 78, 5-6=-64/ 78, 8-9=-51/ 17	4, 3-4=-51/47, /121, 6-7=-64/121, /43, 9-10=-48/34,	( (	<ul> <li>Gable studs</li> <li>This truss ha chord live loa</li> <li>* This truss has truss has the bottor</li> </ul>	spaced at 2-0-0 oc is been designed fo ad nonconcurrent w has been designed in chord in all areas	;. or a 10. vith any for a liv s where	) psf bottom other live loa e load of 20.0 a rectangle	ds. Opsf		4	i's	O'FESS		•
BOT CHORD	2-18=-22 14-16=0/ 10-12=-1	/45, 17-18= 45, 13-14=( 8/45	:0/45, 16-17=0/45, 0/45, 12-13=0/45,		3-06-00 tall t chord and ar	by 2-00-00 wide will by other members.	ll fit betv	veen the botto	om				0363	22	
WEBS	6-15=-96 3-18=-19 8-13=-17	/12, 5-16=- 0/104, 7-14 0/86, 9-12=	193/109, 4-17=-170/ -=-193/109, 190/104	86,	11) IV/A								NGIN	EEP & W	
NOTES 1) Unbalance this design	ed roof live n.	loads have	been considered for	 I	2) Non Standar -OAD CASE(S)	d bearing conditior Standard	n. Revie	ew required.					A. G. July	11,2025	

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent outlapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	F02	Common	4	1	Job Reference (optional)	174832138

0-10-8

0-10-8

4-5-13

4-5-13

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:44

![](_page_20_Figure_3.jpeg)

![](_page_20_Picture_4.jpeg)

![](_page_20_Figure_5.jpeg)

![](_page_20_Figure_6.jpeg)

Scale = 1:36.7

Plate Offsets (X, Y): [8:0-4-0,0-3-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202	1/TPI2014	<b>CSI</b> TC BC WB Matrix-MSH	0.39 0.70 0.24	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.10 -0.19 0.03	(loc) 8-11 8-11 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 73 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Unbalancee this design. 2) Wind: ASC Vasd=103r II; Exp B; E and C-C E3 to 5-8-0, E3 to 15-2-8, E left and rigr exposed; p and forces DOL=1.60 3) TCLL: ASC Plate DOL= DOL=1.150	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 4-4-6 oc purlins. Rigid ceiling directly bracing. (size) 2=0-3-0, Max Horiz 2=-50 (Lf Max Uplift 2=-266 (I Max Uplift 2=-266 (I Max Grav 2=816 (L (Ib) - Maximum Cor Tension 1-2=0/17, 2-3=-165 4-5=-1134/656, 5-6 2-6=-692/1528 4-8=-243/461, 5-8= d roof live loads have E 7-16; Vult=130mpl nph; TCDL=6.0psf; E inclosed; MWFRS (e tetrior(2E) 1-0-10-8 to tetrior(2E) 1-5-2-8 tc th exposed ; end verto orch left and right ex & MWFRS for reactive plate grip DOL=1.60 E 7-16; Pr=20.0 psf (I ; Is=1.0; Rough Cat I t=1 10	eathing directly applie / applied or 7-0-4 oc 6=0-3-0 C 19) C 21), 6=-266 (LC 1 C 21), 6=816 (LC 22) npression/Maximum 6/800, 3-4=-1134/656 =-1656/800, 6-7=0/17 -547/206, 3-8=-547/2 e been considered for n (3-second gust) CDL=6.0psf; h=25ft; nvelope) exterior zon 2-1-8, Interior (1) 2-1 1-8-0, Interior (1) 1-1-1 1-8-2, Interior (1) 2-1 1-8-2,	4) 5) d or 6) 7) 8) 1) 5, 7 06	Unbalanced : design. This truss ha load of 12.0 p overhangs nd This truss ha chord live loa * This truss ha on the bottom 3-06-00 tall b chord and an One H2.5A S recommende UPLIFT at jt( and does not DAD CASE(S)	snow loads have be s been designed fo on-concurrent with s been designed fo d nonconcurrent we as been designed in n chord in all areas y 2-00-00 wide will y other members. impson Strong-Tie d to connect truss s) 2 and 6. This con consider lateral for Standard	een cor or greate other liv other liv for a 10.0 where fit betw connection rces.	nsidered for the er of min roof oad of 20.0 ps/ ve loads. 0 psf bottom other live loa e load of 20.0 a rectangle veen the botto ctors ing walls due n is for uplift of	his live sf on ds. Dpsf om to only		Contraction of the second seco		SEA 0363	L 22 E.E.B.F. Multimut

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BC2E Building Component Schut beformation, available from the Structure Building Component Advanciation (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	G01	Common Supported Gable	1	1	Job Reference (optional)	174832139

-0-10-8

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:44 ID:DP\_INHM2kIcG82JXPRIrjVyzBPX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_21_Figure_4.jpeg)

![](_page_21_Figure_5.jpeg)

#### Scale = 1:33.4

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2021/TPI2014	CSI TC BC WB Matrix-MR	0.28 0.23 0.07	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 9	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 39 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she 7-10-0 oc purlins, e Rigid ceiling directly bracing. (size) 9=7-1-0,1 Max Horiz 11=96 (LC Max Grav 9=459 (LC Max Grav 9=459 (LC 11=459 (L	athing directly applied xcept end verticals. applied or 6-0-0 oc 10=7-1-0, 11=7-1-0 C 13) : 15), 11=-82 (LC 14) C 22), 10=260 (LC 22) C 21)	<ul> <li>4) TCLL: ASG Plate DOL DOL=1.15 Cs=1.00; (0</li> <li>5) Unbalance design.</li> <li>6) This truss load of 12. overhangs</li> <li>7) Truss to be braced aga</li> <li>8) Gable stud</li> <li>9) This truss chord live</li> <li>4) * This truss on the bott</li> </ul>	E 7-16; Pr=20.0 p =1.15); Pf=20.0 ps ; Is=1.0; Rough C t=1.10 d snow loads have has been designer 0 psf or 1.00 times non-concurrent w e fully sheathed fro inst lateral movern s spaced at 2-0-0 has been designer oad nonconcurrer has been designer oad nonconcurrer has been designer oad nonconcurrer	best (roof LL sf (Lum DC cat B; Fully e been cor d for greats s flat roof le tith other lin or one fac ment (i.e. d oc. d for a 10. t with any ed for a liv ass where	: Lum DOL=1 DL=1.15 Plate Exp.; Ce=0.9 exp.;	l.15 ; iis live if on ds. ipsf					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	3-06-00 ta chord and	l by 2-00-00 wide any other member	will fit betv rs.	veen the botto	m					
	2-12=-31/46, 1-2=03 3-4=-27/172, 4-5=-2 6-7=0/57, 6-8=-51/46	9/172, 5-6=-113/228, 6	11) N/A									
BOT CHORD WEBS	11-12=-129/162, 10- 9-10=-129/205, 8-9= 4-10=-256/49, 3-11=	.11=-129/205, 129/205 301/199, 5-9=-301/1	12) Non Stand	ard bearing condit	tion. Revie	ew required.					mmm	um.
NOTES			LOAD CASE(								"TH CA	ROUL
<ol> <li>Unbalance this design</li> </ol>	ed roof live loads have	been considered for								A.	ORTESS	a his

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 1-11-0, Corner(3R) 1-11-0 to 5-11-0, Corner(3E) 5-11-0 to 8-8-8 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

Truss designed for wind loads in the plane of the truss 3) only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

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![](_page_21_Picture_11.jpeg)

818 Soundside Road Edenton, NC 27932

SEAL

036322

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	G02	Common	1	1	Job Reference (optional)	174832140

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:44 ID:DP\_INHM2klcG82JXPRIrjVyzBPX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

Ра

![](_page_22_Figure_5.jpeg)

![](_page_22_Figure_6.jpeg)

Scale = 1.35.5
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DIALA	04	~ `	<b>A</b> .		[0:0 F 40 0 4 0]
Plate	Offsets	(X, `	Y):	[6:0-5-10,0-1-8],	[8:0-5-10,0-1-8]

Loading	(nsf)	Spacing	2-0-0	CSI		DEEL	in	(loc)	l/defl	l /d		GRIP
TCLL (roof)	20.0	Plate Grin DOI	1 15	TC	0.33	Vert(LL)	0.01	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOI	1.10	BC	0.00	Vert(CT)	-0.01	7-8	>999	180	11120	210100
	10.0	Ren Stress Incr	YES	WB	0.05	Horz(CT)	0.00	. 0	n/a	n/a		
BCU	0.0*	Code	IPC2021/TPI20	A Matrix-M	P 0.00		0.00	0	n/a	n/a		
BCDI	10.0	Code	11(02021/11120	INIdulia-IVI							Weight <sup>,</sup> 36 lb	FT - 20%
DODL	10.0										Weight. 30 lb	11 = 2070
LUMBER			5) This t	uss has been des	signed for great	er of min roo	of live					
TOP CHORD	2x4 SP No.2		load o	f 12.0 psf or 1.00	times flat roof l	oad of 20.0 p	osf on					
BOT CHORD	2x4 SP No.2		overh	angs non-concurr	ent with other li	ve loads.						
WEBS	2x6 SP No.2 *Excep	ot* 7-3:2x4 SP No.3	6) This t	uss has been des	signed for a 10.	0 psf bottom						
BRACING			chord	live load noncond	current with any	other live loa	ads.					
TOP CHORD	Structural wood she	athing directly applie	edor 7) * This	truss has been d	esigned for a liv	e load of 20.	.0psf					
	6-0-0 oc purlins, exc	cept end verticals.	on the	bottom chord in	all areas where	a rectangle						
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc	3-06-0	0 tall by 2-00-00	wide will fit bety	veen the both	tom					
	bracing.		chord	and any other me	embers.							
REACTIONS	(size) 6=0-3-0, 8	3=0-3-0	8) PIOVIC	e mechanical cor	f withstanding	IEIS) OI LIUSS	lO					
	Max Horiz 8=98 (LC	13)	B and	45 lb unlift at join	+ 6	+5 ib upilit at	joint					
	Max Uplift 6=-45 (LC	2 15), 8=-45 (LC 14)		SE(S) Standard	i 0.							
	Max Grav 6=498 (LC	C 22), 8=498 (LC 21)		SE(S) Standard	1							
FORCES	(lb) - Maximum Com	pression/Maximum										
	Tension											
TOP CHORD	1-2=0/62, 2-3=-344/	190, 3-4=-344/188,										
	4-5=0/62, 2-8=-455/2	234, 4-6=-455/232										
BOT CHORD	7-8=-33/184, 6-7=-3	3/184										
WEBS	3-7=-72/142											
NOTES												
1) Unbalance	ed roof live loads have	been considered for	•									11111
	N. CE 7 16: Vult-120mph	(2 accord quat)									N'TH CA	Roille
2) Wind. AS	CE 7-10, $Vuit=13011p11$	CDI _6 Opef: b_25ft:	Cat							A	A	······································
II. Evo B.	Enclosed: MW/ERS (en	$ODL=0.0p31, \Pi=2311,$	o							SI	FEZO	Privata
and C-C F	Enclosed, MM1100 (cf) Exterior(2E) -0-10-8 to 3	2-1-8 Exterior(2R) 2	-1-8							ÐÞ		1211
to 5-8-8. E	Exterior(2E) 5-8-8 to 8-8	8-8 zone: end vertica	al						1		Q.	
left and rid	aht exposed: porch left	and right exposed:C							-		SEA	1 1 2
for member	ers and forces & MWF	RS for reactions sho	wn:						=	:	JLA	·- : =
Lumber D	OL=1.60 plate grip DO	L=1.60	,								0363	22 : =
									-	1		1 E -
<ol><li>TCLL: AS</li></ol>	CE 7-16; Pr=20.0 psf (	roof LL: Lum DOL=1	.15							1	·	A
Plate DOL	_=1.15); Pf=20.0 psf (L	um DOL=1.15 Plate								20	NOIN	FERRIX
DOL=1.15	5); Is=1.0; Rough Cat B	3; Fully Exp.; Ce=0.9	;							1	AL	Start N
Cs=1.00;	Ct=1.10	and the state of the	-								A G	IL BY IN
<li>4) Unbalance docian</li>	eu snow loads navê bê	en considered for th	15								11111	
uesigii.												11 2025
											Jui	y 11,2020

![](_page_22_Picture_10.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent outlapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	G03	Common	1	1	Job Reference (optional)	174832141

-0-10-8

Carter Components (Sanford, NC), Sanford, NC - 27332,

#### Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:44 ID:?D?Cdqfjr\_mjeujLNBFiEnyzBP8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

![](_page_23_Figure_3.jpeg)

![](_page_23_Figure_4.jpeg)

![](_page_23_Figure_5.jpeg)

![](_page_23_Figure_6.jpeg)

Scale = 1:35.5

### Plate Offsets (X, Y): [5:0-5-10,0-1-8], [7:0-5-10,0-1-8]

	, i). [0.0-0-10,0-1-0	j, [1.0-3-10,0 <b>-</b> 1-0]											
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202	1/TPI2014	CSI TC BC WB Matrix-MR	0.29 0.18 0.05	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.01 -0.02 0.00	(loc) 6-7 6-7 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 34 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103 II; Exp B; I and C-C E to 4-7-4, E left expose members 3: Lumber DU 3) TCLL: ASC Plate DOL DOL=1.15 CS=1.00; C 4) Unbalance design.	2x4 SP No.2 2x4 SP No.2 2x6 SP No.2 *Excep Structural wood she 6-0-0 cc purlins, ex Rigid ceiling directly bracing. (size) 5=0-7-0, 7 Max Horiz 7=82 (LC Max Uplift 5=-23 (LC Max Uplift 5=-23 (LC Max Grav 5=378 (LC (Ib) - Maximum Com Tension 1-2=0/43, 2-3=-337/ 2-7=-408/234, 4-5=- 6-7=-83/194, 5-6=-8 3-6=-65/137 ed roof live loads have n. CE 7-16; Vult=130mph mph; TCDL=6.0psf; B/ Enclosed; MWFRS (er http://cei.setand.com Exterior(2E) -0-10-8 to Exterior(2E) -0-10-8 to Exterior(2E) 4-7-4 to 7- ed; porch left and right and forces & MWFRS OL=1.60 plate grip DC CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L =); Is=1.0; Rough Cat E Ct=1.10 ed snow loads have be	t* 6-3:2x4 SP No.3 athing directly applie cept end verticals. applied or 10-0-0 oc 7=0-3-0 11) 2 15), 7=-45 (LC 14) 2 22), 7=450 (LC 21) pression/Maximum 190, 3-4=-345/186, 332/165 3/194 been considered for (3-second gust) CDL=6.0psf; h=25ft; tvelope) exterior zon 2-1-8, Exterior(2R) 2 7-4 zone; end vertica exposed;C-C for for reactions shown; DL=1.60 wDL=1.15 Plate 8; Fully Exp.; Ce=0.9	5) 6) 6) 8) 9) 9) L( 	This truss ha load of 12.0 overhangs n This truss ha chord live lo. * This truss l on the botto 3-06-00 tall l chord and an Provide mec bearing plate 7. One H2.5A \$ recommend UPLIFT at jt does not cor <b>DAD CASE(S)</b>	as been designed f psf or 1.00 times f ion-concurrent with as been designed f ad nonconcurrent i has been designed m chord in all area by 2-00-00 wide wi ny other members. thanical connection e capable of withst Simpson Strong-Ti ed to connect truss (s) 5. This connect nsider lateral force: Standard	ior great lat roof la other li ior a 10. with any f for a liv s where ill fit betv h (by oth anding 4 e conne to bear ion is for s.	er of min rool oad of 20.0 p ve loads. D psf bottom other live loa e load of 20.1 e load of 20.1 e load of 20.1 ers) of truss i 15 lb uplift at j ctors ing walls due r uplift only at	f live Isf on ads. Opsf om to joint e to nd		And the second		SEA 0363	L L L B H H H H H H H H H H H H H H H H
												July	/ 11,2025

![](_page_23_Picture_10.jpeg)

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Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	G04	Common Girder	1	2	Job Reference (optional)	174832142

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:44 ID:mIX4RCA3yu3lhLxPq??YxdyzBOU-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_24_Figure_5.jpeg)

![](_page_24_Figure_6.jpeg)

Scale = 1:37.9

-

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC202	21/TPI2014	CSI TC BC WB Matrix-MP	0.26 0.84 0.03	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.11 -0.19 0.04	(loc) 6 6 1	l/defl >761 >464 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 76 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES 1) 2-ply truss (0.131"x3" Top chord NOTES 1) 2-ply truss (0.131"x3" Top chord Bottom ch staggered Web com CASE(S) s provided th unless oth 3) Unbalance this desigr 4) Wind: ASG Vasd=103 II; Exp B; I end vertica Lumber DO	2x4 SP No 2x6 SP No 2x4 SP No Structural 1 6-0-0 oc p Rigid ceilir bracing. (size) Max Horiz Max Uplift Max Grav (lb) - Maxir Tension 1-3=-245/1 1-6=-57/6C 3-6=-261/4 to be connect ords connect at 0-9-0 oc. ected as foll section. Ply to o distribute o perwise indica der of live lo n. CE 7-16; Vutt imph; TCDL= Enclosed; MN al left expose OL=1.60 plat	.2 .2 .3 wood sheat urlins, exu- ing directly 1=0-3-0, 5 1=60 (LC 1=857 (LC num Com 26, 3-4=-i), 5-6=0/0 0 cted toget ows: as follows ted as	athing directly applie cept end verticals. applied or 10-0-0 oc 5=0-5-8 9) C 12), $5=-167$ (LC 13 C 18), $5=814$ (LC 19) pression/Maximum 73/73, $4-5=-164/70$ ther with 10d s: 2x4 - 1 row at 0-9-0 cus: 2x6 - 2 rows 1 row at 0-9-0 oc. applied to all plies, ck (B) face in the LO. tections have been noted as (F) or (B), been considered for (3-second gust) CDL=6.0psf; h=25ft; velope) exterior zone eft and right exposed L=1.60	5 d or 7 : 8 3) 9 1 1 1 1 0 1 AD Cat. e; t;	<ul> <li>TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct:</li> <li>Unbalanced design.</li> <li>This truss ha chord live loa on the bottor 3-06-00 tall b chord and ar</li> <li>One H2.5A S recommende UPLIFT at jt( and does no</li> <li>Use Simpson Truss, Single oc max. start to connect tr</li> <li>Fill all nail hai</li> <li>Dead + Sno Increase=1 Uniform Loa Vert: 1-3 Concentrata</li> </ul>	7-16; Pr=20.0 psf (15); Pf=20.0 psf ( s=1.0; Rough Cat 1.10 snow loads have b s been designed for d nonconcurrent v has been designed n chord in all areas by 2-00-00 wide will y other members. Simpson Strong-Tie to connect truss s) 5 and 1. This co c consider lateral for n Strong-Tie LUS2 PIy Girder) or equing at 1-10-12 from uss(es) to back fac les where hanger Standard bw (balanced): Lun 15 ads (lb/ft) =-60, 3-4=-60, 5-7: ed Loads (lb) 313 (B), 12=-313 (l	(roof LL Lum DC B; Fully been cor or a 10.0 with any for a liv s where ll fit betw e connection proces. 6 (4-10c uivalent n the lef ce of bot is in cor nber Inc =-20 B), 13=-	: Lum DOL= DL=1.15 Plate Exp.; Ce=0. Issidered for t D psf bottom other live loa e load of 20. a rectangle veen the bott ctors ng walls due n is for uplift I Girder, 3-10 spaced at 2-10 tom chord. tact with lum rease=1.15, 313 (B)	1.15 e) 9; his dds. 0psf om to only 0d 0-0 -12 bber. Plate				SEA 0363	RO L 22 ILBER 11,2025	Mannunn

![](_page_24_Picture_9.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Science United for the Structure Buckling Component Advance Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	H01	Monopitch	1	1	Job Reference (optional)	174832143

#### Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:45 ID:1aYKOOAVMhpxxEzIlwYOtKyzBSM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_25_Figure_4.jpeg)

![](_page_25_Figure_5.jpeg)

Scale = 1:34.9

# Plate Offsets (X, Y): [2:Edge,0-1-1], [2:0-2-10, Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2021 3)	1/TPI2014 TCLL: ASCE	CSI TC BC WB Matrix-MR	0.60 0.53 0.01 sf (roof LL	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.06 -0.09 0.01	(loc) 7-8 7-8 2	l/defl >999 >944 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 32 lb	<b>GRIP</b> 244/190 FT = 20%	
TOP CHORD BOT CHORD WEBS DTHERS WEDGE BRACING TOP CHORD BOT CHORD FORCES TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Left: 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exx Rigid ceiling directly bracing. (size) 2=0-3-0, 1 Max Horiz 2=72 (LC Max Uplift 2=-137 (LL Max Grav 2=469 (LC (lb) - Maximum Com Tension 1-2=0/18, 2-3=-295/ 4-5=-255/176, 5-6=- 2-8=-212/263, 7-8=-	athing directly applied cept end verticals. applied or 10-0-0 oc 14=0-1-8 10) C 10), 14=-98 (LC 10 C 10), 14=311 (LC 21 pression/Maximum 143, 3-4=-277/159, 137/170 212/263, 6-7212/26	4) 5) d or 6) 7) 8) ) 9) 9)	Plate DOL=' DOL=1.15); Cs=1.00; Ct Unbalanced design. This truss ha load of 12.0 overhangs n Gable studs This truss ha chord live loi * This truss ha chord live loi * This truss li on the botton 3-06-00 tall li chord and an Bearing at jc using ANSI/ designer sho	1.15): PT=20.0 psf Is=1.0; Rough Ca =1.10; Snow loads have as been designed psf or 1.00 times on-concurrent wit spaced at 2-0-0 as been designed ad onconcurrent has been designed ad onconcurrent into all are: y 2-00-00 wide v hy other members int(s) 14 conside ITPI 1 angle to gra build verify capacit hanical connectic at init(s) 14	(Lum DC at B; Fully been cor for great flat roof k th other liv oc. for a 10.0 with any of for a 10.1 as where will fit betw s. rs parallel ain formula ty of beari on (by oth	Lef1.15 Plate Exp.; Ce=0.1 asidered for t er of min rool oad of 20.0 p ve loads. D psf bottom other live loa e load of 20.1 a rectangle veen the bott to grain valu a. Building ng surface. ers) of truss	his 9; f live sf on ads. 0psf .om Je						
WEBS NOTES 1) Wind: AS( Vasd=103; and C-C E to 3-8-8, E exposed; reactions DOL=1.6( 2) Truss des only. For see Stand or consult	4-7=-60/47, 3-8=-64/ CE 7-16; Vult=130mph mph; TCDL=6.0psf; B( Enclosed; MWFRS (en Exterior(2E) -0-10-8 to 2 Exterior(2E) 3-8-8 to 6-4 end vertical left expose 2-C for members and for shown; Lumber DOL=1 ) igned for wind loads in studs exposed to wind lard Industry Gable Enc envalified building desize	/43, 5-14=-333/268 (3-second gust) CDL=6.0psf; h=25ff; ivelope) exterior zone 2-1-8, Interior (1) 2-1. 8-8 zone; cantilever li ed; porch left and rigi prces & MWFRS for 1.60 plate grip the plane of the trus: (normal to the face), d Details as applicabl prograse per ANSU/TD	11 Cat. B B Eft t t S S E, 1	) One H2.5A S recommende UPLIFT at jt and does no DAD CASE(S)	Simpson Strong-T ad to connect trus (s) 2 and 14. This t consider lateral Standard	Fie conner sto bear connection forces.	ctors ing walls due on is for uplif	e to t only		6		SEA 0363		Mannan

reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

mmm July 11,2025 818 Soundside Road Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	H02	Monopitch	5	1	Job Reference (optional)	174832144

#### Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:45 ID:KTXq?QfDiHz7LXcdC1n?2\_yzBRj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_26_Figure_4.jpeg)

![](_page_26_Figure_5.jpeg)

Scale = 1:34.9

### Plate Offsets (X, Y): [2:Edge,0-1-1], [2:0-2-10,Edge], [4:0-2-8,0-1-0]

	() / [ - 5-)- 1,		,-									-		
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202	1/TPI2014	CSI TC BC WB Matrix-MP	0.78 0.64 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.16 -0.21 0.02	(loc) 4-9 4-9 2	l/defl >518 >390 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 29 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS WEDGE BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Left: 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 2=0-3-0,4 Max Horiz 2=72 (LC Max Uplift 2=-133 (L Max Grav 2=457 (LC	athing directly applic cept end verticals. applied or 10-0-0 o 4=0-1-8 10) C 10), 4=-102 (LC 1 C 21), 4=322 (LC 21	4) 5) 6) ed or c 7) 8) 10) 9)	This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall th chord and ar Bearing at jo using ANSI/ designer sho Provide mec bearing plate One H2.5A S recommender	is been designed is pef or 1.00 times f on-concurrent with is been designed is ad nonconcurrent has been designed in chord in all area by 2-00-00 wide w hy other members int(s) 4 considers FPI 1 angle to grai build verify capacity hanical connections e at joint(s) 4. Simpson Strong-Ti ad to connect truss	for great lat roof lo n other li for a 10.1 with any d for a liv s where ill fit betw parallel n formul y of bear n (by oth ie conne s to bear	er of min roo oad of 20.0 p ve loads. 0 psf bottom other live loa e load of 20. a rectangle veen the bott o grain value a. Building ng surface. ers) of truss ctors ing walls due	f live sf on ads. Opsf om to						
FORCES TOP CHORD BOT CHORD	(lb) - Maximum Com Tension 1-2=0/18, 2-3=-108/ 2-4=-135/127	npression/Maximum 102, 3-4=-225/179	LC	UPLIFT at jt( and does no DAD CASE(S)	s) 2 and 4. This c t consider lateral f Standard	onnectio orces.	n is for uplift	only						
NOTES														
<ol> <li>Wind: AS Vasd=100</li> <li>II; Exp B; and C-C I to 3-8-8, I exposed ; exposed; reactions DOL=1.60</li> <li>TCLL: AS Plate DOI</li> </ol>	CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; Bi Enclosed; MWFRS (er Exterior(2E) -0-10-8 to 3- Exterior(2E) 3-8-8 to 6- end vertical left expos C-C for members and f shown; Lumber DOL= 0 CCE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L	(3-second gust) CDL=6.0psf; h=25ft tvelope) exterior zor 2-1-8, Interior (1) 2- 8-8 zone; cantilever ed; porch left and ri, orces & MWFRS for 1.60 plate grip roof LL: Lum DOL= um DOL=1.15 Plate	; Cat. ne 1-8 left ght r 1.15							Contraction of the second seco		SEA 0363	ROLINI L 22	Partition
DOL=1.1 Cs=1.00; 3) Unbalanc	5); Is=1.0; Rough Cat E Ct=1.10 ed snow loads have be	3; Fully Exp.; Ce=0.9	9; his							3		S. NGIN	EERA	

design.

A. GILBE July 11,2025

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Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	H03	Monopitch	1	1	Job Reference (optional)	174832145

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:45 ID:qsbcfelXa5E8GwWwy0z5\_xykdBf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

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![](_page_27_Figure_5.jpeg)

![](_page_27_Figure_6.jpeg)

Scale = 1:32.2

Plate Offsets (X, Y): [1:Edge,0-1-1], [1:0-2-10,Edge], [3:0-2-8,0-1-0]

	··; ·): [··==ge; · ·];	[											
Loading	(psf) 20.0	Spacing Plate Grip DOI	2-0-0 1.15	CSI TC	0.82	DEFL Vert(LL)	in 0.17	(loc) 3-8	l/defl >472	L/d 240	PLATES MT20	<b>GRIP</b> 244/190	
Snow (Pf)	20.0	Lumber DOI	1 15	BC	0.70	Vert(CT)	-0.22	3-8	>361	180		21.0.100	
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	1	n/a	n/a			
BCLI	0.0*	Code	IRC2021/TPI2014	Matrix-MP									
BCDL	10.0	0000									Weight: 28 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS WEDGE BRACING TOP CHORD BOT CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CH	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Left: 2x4 SP No.3 Structural wood shee 6-0-0 oc purlins, exx Rigid ceiling directly bracing. (size) 1=0-3-0,3 Max Horiz 1=62 (LC Max Uplift 1=-97 (LC Max Grav 1=62 (LC (lb) - Maximum Com Tension 1-2=-188/130, 2-3=-2 1-3=-217/211 CE 7-16; Vult=130mph mph; TCDL=6.0psf; BG Enclosed; MWFRS (en Exterior(2E) 0-0-0 to 3-0 erior(2E) 0-0	athing directly applied cept end verticals. applied or 10-0-0 oc B=0-1-8 14) 10), 3=-105 (LC 10) 2 21), 3=332 (LC 21) pression/Maximum 230/186 (3-second gust) CDL=6.0psf; h=25ft; ( velope) exterior zone 0-0, Interior (1) 3-0-0 i zone; cantilever left boosed;C-C for membins shown; Lumber roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi a 10.0 psf bottom th any other live load	5) * This tru on the bo 3-06-00 t chord and 6) Bearing a using AN designer 7) Provide r bearing p 8) One H2.5 recomme UPLIFT a and does LOAD CASE	ss has been designe tom chord in all are all by 2-00-00 wide w any other members t joint(s) 3 considers SI/TPI 1 angle to gra should verify capaci hechanical connection ate at joint(s) 3. A Simpson Strong-T nded to connect trus t jt(s) 1 and 3. This of not consider lateral (S) Standard	ed for a liv as where will fit betv s. s parallel t ain formula ty of beari on (by oth Tie connection forces.	e load of 20. a rectangle veen the bott o grain value a. Building ng surface. ers) of truss ctors ing walls due n is for uplift	Opsf om to to only		M. Contraction of the second		SEA 0363	ROUL ROUL L 22 EER.	
											July	/ 11,2025	

ENGINEERING BY RENACO A MITEK Atfiliate

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Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	H04	Monopitch	3	1	Job Reference (optional)	174832146

6-7-8

Carter Components (Sanford, NC), Sanford, NC - 27332,

## Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:45 ID:9RTNzvL\_Ho91hITa2VJNs?yzBQq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

3:45 Page: 1 IC?f

![](_page_28_Figure_4.jpeg)

Scale =	1:22
---------	------

# Plate Offsets (X, Y): [1:0-2-12,0-1-7]

Loading TCLL (roof) Snow (Pf) TCDL BCLL	(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2021/TPI2014	CSI TC BC WB Matrix-MR	0.68 0.54 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.07 -0.09 0.02	(loc) 6-9 6-9 1	l/defl >999 >838 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 244/190	
BCDL	10.0	0000									Weight: 25 lb	FT = 20%	
BCDL LUMBER TOP CHORD SOT CHORD OTHERS SLIDER BRACING TOP CHORD BOT CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD BOT CHORD NOTES 1) Wind: ASC Vasd=103 II; Exp B; E and C-C E 3-7-8, Exter right exposi- for reaction	10.0 2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 Left 2x4 SP No.3 7 Structural wood she 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1= Mecha Max Horiz 1=60 (LC Max Uplift 1=-85 (LC Max Grav 1=333 (LC (lb) - Maximum Com Tension 1-3=-272/161, 3-4=-1 1-6=-350/381, 5-6=0 CE 7-16; Vult=130mph mph; TCDL=6.0psf; BG Enclosed; MWFRS (er xterior(2E) 0-0-0 to 3-1 prior(2E) 3-7-8 to 6-7-5 sed; C-C for members 3- s shown: Lumber DO	1-6-0 athing directly applie applied or 10-0-0 oc nical, 6= Mechanica 10) $(2 \ 0)$ , 6=-109 (LC 10) $(2 \ 20)$ , 6=-363 (LC 20) pression/Maximum 6/0, 3-6=-239/172 //0 (3-second gust) CDL=6.0psf; h=25ft; ivelope) exterior zon 0-0, Interior (1) 3-0-0 3 zone; porch left and and forces & MWFR: I = 160 plate grip	5) * This truss on the bott 3-06-00 ta chord and 6) Refer to gi 7) Provide m bearing pla to and 109 c LOAD CASE( 1	s has been designed om chord in all area l by 2-00-00 wide w any other members rder(s) for truss to t cchanical connection the capable of withs lb uplift at joint 6. 5) Standard	d for a liva as where vill fit betw russ conn n (by oth tanding 8	e load of 20.1 a rectangle veen the both ections. ers) of truss t 5 lb uplift at j	Opsf om to joint				Weight: 25 lb	FT = 20%	
DOL=1.60 2) TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; ( 3) Unbalance design. 4) This truss chord live	CE 7-16; Pr=20.0 psf ( =1.15); Pf=20.0 psf (L ); Is=1.0; Rough Cat B Ct=1.10 ed snow loads have be has been designed for load nonconcurrent wi	roof LL: Lum DOL=1 um DOL=1.15 Plate 8; Fully Exp.; Ce=0.9 een considered for th r a 10.0 psf bottom th any other live load	.15 ; is ds.						or the transmission		SEA 0363	EER.X	WILLING

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSUTP11 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

![](_page_28_Picture_9.jpeg)

Job	Truss Truss Type		Qty	Ply	896 Serenity-Roof-B328 A CP GRH		
25070014-01	HJ211	Jack-Open	1	1	Job Reference (optional)	174832147	

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:45 ID:sO9akXcGp1tsoTjN9u??hcyzBDb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

![](_page_29_Figure_3.jpeg)

![](_page_29_Figure_4.jpeg)

![](_page_29_Figure_5.jpeg)

![](_page_29_Figure_6.jpeg)

Scale = 1:28.9

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2021/TPI20	)14	CSI TC BC WB Matrix-MR	0.40 0.11 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 -0.01 -0.01	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 14 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD 2x4 SP No BOT CHORD 2x4 SP No WEBS 2x6 SP No BRACING TOP CHORD Structural 3-0-9 oc p BOT CHORD Rigid ceili bracing. REACTIONS (size) Max Horiz Max Uplift Max Uplift Max Grav FORCES (lb) - Maxi Tension TOP CHORD 2-5=-349/ BOT CHORD 4-5=0/0 NOTES 1) Wind: ASCE 7-16; Vul Vasd=103mph; TCDL: II; Exp B; Enclosed; M and C-C Corner (3) - 12-11-13 zone; end ver and forces & MWFRS DOL=1.60 plate grip D 2) TCLL: ASCE 7-16; Pf=/ DOL=1.15); IF=/ DOL=1.15); IF=/ DOL=1.15); IF=/ DOL=1.10; Sas=1.0; Rc Cs=1.00; Ct=1.10 3) Unbalanced snow load design. 4) This truss has been dd load of 12.0 psf or 1.0 overhangs non-concul 5) This truss has been dd chord live load noncor	<ul> <li>b.2</li> <li>b.2</li> <li>b.2</li> <li>b.2</li> <li>b.2</li> <li>wood she urlins, exing directly</li> <li>3= Mecha</li> <li>5=0-9-7</li> <li>5=59 (LC</li> <li>3=-36 (LC</li> <li>23=-36 (LC</li> <li>210 (LC</li> <li>211)</li> <li>mum Com</li> <li>235, 1-2=0</li> <li>t=130mph</li> <li>=6.0psf; Bu</li> <li>WFRS (erition of the second sec</li></ul>	athing directly applie cept end verticals. applied or 10-0-0 oc nical, 4= Mechanical 14) : 14), 5=-47 (LC 10) 21), 4=46 (LC 7), 5= pression/Maximum 1/70, 2-3=-68/27 (3-second gust) CDL=6.0psf; h=25ft; ivelope) exterior zone -8, Exterior(2R) 2-6-4 posed; C-C for memt ns shown; Lumber roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi r greater of min roof I t roof load of 20.0 psi other live loads. a 10.0 psf bottom th any other live load	6) * This on the 3-06-( chord 7) Bearin 8) Refer 9) Provic bearin 5 and 1, LOAD CA 394 Cat. e 8 to bers .15 ; is live f on	s truss ha e bottom 00 tall by and any ngs are - t o girde de mech ng plate 1 36 lb up ASE(S)	as been designed i chord in all areas y 2-00-00 wide will y other members. assumed to be: , J r(s) for truss to tru anical connection capable of withsta blift at joint 3. Standard	for a liv where fit betw oint 5 L uss coni (by oth- nding 4	e load of 20.0 a rectangle veen the botto Jser Defined nections. ers) of truss t 7 lb uplift at j	Opsf oont		And the second se		SEA 0363	ROUTE L 22 L L BER	

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![](_page_29_Picture_12.jpeg)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	J01	Jack-Open Girder	1	1	Job Reference (optional)	174832148

1-7-8

4-0-8

-0-10-8

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:45 ID:5fFqIE7FhFHmT3VeBQG4whyzBCw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_30_Figure_5.jpeg)

Special

![](_page_30_Figure_7.jpeg)

Scale = 1:39.6

# Plate Offsets (X, Y): [3:0-3-4,0-2-0]

Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)		20.0	Plate Grip DOL	1.15		тс	0.36	Vert(LL)	-0.03	5-6	>999	240	MT20	244/190	
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.43	Vert(CT)	-0.05	5-6	>911	180			
TCDL		10.0	Rep Stress Incr	NO		WB	0.02	Horz(CT)	0.07	4	n/a	n/a			
BCLL		0.0*	Code	IRC20	21/TPI2014	Matrix-MP									
BCDL		10.0											Weight: 18 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP N 2x4 SP N 2x4 SP N Structural 4-0-8 oc p 2-0-0 oc p Rigid ceil bracing	0.2 0.2 0.3 wood shea ourlins, exc ourlins: 3-4. ng directly	athing directly applied cept end verticals, an applied or 6-0-0 oc	e 7 d or nd e	<ul> <li>This truss ha load of 12.0 j overhangs ne</li> <li>Provide adee</li> <li>This truss ha chord live loa</li> <li>* This truss h on the botton 3-06-00 tall b chord and ar</li> </ul>	s been designed fo osf or 1.00 times fla on-concurrent with juate drainage to p s been designed fo d nonconcurrent w as been designed i n chord in all areas y 2-00-00 wide will y other members.	or great at roof lo other liv revent v or a 10.0 rith any for a liv where fit betv	er of min roo bad of 20.0 p ve loads. water pondin 0 psf bottom other live loa e load of 20. a rectangle veen the bott	f live osf on g. ads. 0psf	Vert: 3=-81 (B), 6=-29 (B), 8=-68 (B), 9=-31 (B)					
REACTIONS	(size)	4= Mecha 7=0-5-8	nical, 5= Mechanical	, 9 , 1	<ul><li>Bearings are</li><li>Refer to girde</li></ul>	assumed to be: , J er(s) for truss to tru	loint 7 l uss con	Jser Defined nections.							
	Max Horiz Max Uplift Max Grav	<ul> <li>7=0-5-8</li> <li>7=64 (LC 53)</li> <li>4=-50 (LC 9), 5=-7 (LC 12), 7=-46</li> <li>(LC 12)</li> <li>4=176 (LC 33), 5=115 (LC 30),</li> <li>7=381 (LC 34)</li> <li>(LC 34)</li> <li>(LC 12)</li> <li>(LC 34)</li> <li>(LC 34)</li> <li>(LC 12)</li> <li>(LC 34)</li> <li>(LC 34</li></ul>													
FORCES	(lb) - Max Tension	imum Com	pression/Maximum		does not consider lateral forces.										
TOP CHORD BOT CHORD WEBS NOTES	2-7=-266/ 6-7=-6/7, 3-6=-103/	'35, 1-2=0/6 5-6=0/0 '80	63, 2-3=-114/21, 3-4=	=0/0 <sup>1</sup> 1	<ul> <li>13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.</li> <li>14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.</li> </ul>							ROLIN			
<ol> <li>Unbalanced roof live loads have been considered for this design.</li> <li>Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; end vertical left exposed; Lumber DOL=1.60 plate grip</li> </ol>					<ul> <li>b) Tranger(s) of provided suff</li> <li>b) down and down and 3 I</li> <li>design/select</li> <li>responsibility</li> <li>6) In the LOAD</li> </ul>	icient to support co 92 lb up at 1-7-8 o b up at 1-7-11 on b ion of such connec of others. CASE(S) section. I	ncentra n top cl oottom ction de	nord, and 34 chord. The vice(s) is the	122 Ib face		Gunn		SEA		
<ul> <li>3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9;</li> <li>1) Dead + Dead +</li> </ul>						are noted as front (F) or back (B). ) Standard now (balanced): Lumber Increase=1.15, Plate							EERA		
<ul><li>4) Unbalance design.</li></ul>	ed snow loa	ds have be	en considered for thi	S	Vert: 1-2 Concentrate	form Loads (lb/ft) /ert: 1-2=-60, 2-3=-60, 3-4=-60, 5-7=-20 ncentrated Loads (lb) July 11,2025							11,2025		

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Science Use Component Categories (http://www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

![](_page_30_Picture_12.jpeg)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	J02	Jack-Open	1	1	Job Reference (optional)	174832149

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:45 ID:oyh2Rm0XL\_ipQxTyo5dVCHyzBEM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_31_Figure_5.jpeg)

I	2-11-10	4-0-8
	2-11-10	1-0-14

Scale = 1:35.3

Plate Offsets (X, Y): [3:0-3-4,0-2-0]

						-						-	
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.03	6-7	>999	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.03	6-7	>999	180			
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.04	4	n/a	n/a			
BCLL	0.0	* Code	IRC2021/TPI201	Matrix-MP									
BCDL	10.0										Weight: 20 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood s 4-0-8 oc purlins, 2-0-0 oc purlins; Rigid ceiling direc bracing. (size) 4= Me 7=0-5- Max Horiz 7=100 Max Uplift 4=-15 GLC 14 Max Grav 4=85 ( 7=324	heathing directly applie except end verticals, a 3-4. ttly applied or 6-0-0 oc chanical, 5= Mechanica 3 (LC 14) LC 11), 5=-42 (LC 14) ) _C 37), 5=103 (LC 38) (LC 38)	4) Unbala design. 5) This tr. load of overha ed or nd 7) This tr. chord i 8) * This tr on the 3-06-00 chord a 9) Bearing 10) Refer tt 11) Provide bearing 4 and 4	teed snow loads h ss has been desig [2.0 psf or 1.00 tin gs non-concurrer adequate drainag se has been desig te load nonconcui uss has been desig te load nonconcui s has been desig te load nonconcui uss has been desig te load nonconcui tall by 2-00-00 wi ad any other mem s are assumed to girder(s) for trus mechanical conn plate capable of t 2 lb uplift at joint 5 2 Sa Simpson Stro	nave been cor gned for great mes flat roof li tt with other li gned for a 10. rrent with any signed for a liv areas where ide will fit betw bers. be:, Joint 7 li s to truss con ection (by oth withstanding 1 5. ma Tie conne	nsidered for the root of 20.0 p ve loads. water pondir 0 psf bottom other live load e load of 20. a rectangle veen the bott Jser Defined nections. ers) of truss 5 lb uplift at	this of live osf on ng. ads. .0psf tom I. to joint						
TOP CHORD	(lb) - Maximum C Tension 2-7=-261/82, 1-2:	ompression/Maximum =0/63, 2-3=-113/60, 3-4	4=0/0 does not	ended to connect at jt(s) 7. This con t consider lateral	t truss to bear nnection is for forces.	ing walls due ruplift only a	e to and						
	0-7=-0/0, 0-0=0/0		13) Graphi	al purlin represen	tation does no	ot depict the	size				MILLIN	1111.	
WEDS	3-0=-117/125		or the c	rientation of the p	urlin along the	e top and/or					IN TH CA	ROUL	
NOTES			bottom	chord.							R		12
<ol> <li>Official design this design</li> <li>Wind: ASC Vasd=103; II; Exp B; E and C-C E C for mem shown; Lu</li> <li>TCLL: ASC Plate DOL DOL=1.15</li> </ol>	CE 7-16; Vult=130m mph; TCDL=6.0psf Enclosed; MWFRS ixterior(2E) zone; e ibers and forces & l mber DOL=1.60 pla CE 7-16; Pr=20.0 ps .=1.15); Pf=20.0 ps .); Is=1.0; Rough Ca	ph (3-second gust) BCDL=6.0psf; h=25ft (envelope) exterior zor d vertical left exposed MWFRS for reactions tte grip DOL=1.60 sf (roof LL: Lum DOL= (Lum DOL=1.15 Plate tt B; Fully Exp.; Ce=0.5	; Cat. 1e 1;C- 1.15 9;	E(S) Standard					Contraction of the second		SEA 0363	L 22 EER BER	
Cs=1.00; (	Ct=1.10										July July	11.2025	5

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Science Use Component Categories (http://www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

![](_page_31_Picture_12.jpeg)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLC1	Valley	1	1	Job Reference (optional)	174832150

9-6-6

Carter Components (Sanford, NC), Sanford, NC - 27332

Scale = 1:49.4 Loading

TCLL (roof)

Snow (Pf)

LUMBER

WFBS

WERS

OTHERS

BRACING

TOP CHORD

BOT CHORD

REACTIONS

FORCES

TOP CHORD

BOT CHORD

WEBS

NOTES

2)

(size)

TOP CHORD

BOT CHORD

TCDL

BCLL

BCDL

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Jul 11 07:18:45 ID:MUJwr2X04VK7oB8VeTRuFYyzBGG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

2x4 🛛

Page: 1

2x4 II 12 3 11 7-11-9 7-11-9 10 2x4 i 12 10 F 2 0-0-4 5 6 2x4 II 2x4 u 2x4 2x4 II 9-6-6 Spacing 2-0-0 CSI DEFL l/defl L/d PLATES GRIP (psf) in (loc) 20.0 Plate Grip DOL 1.15 TC 0.31 Vert(LL) n/a 999 MT20 244/190 n/a BC 20.0 1 15 Lumber DOL 0.17 Vert(TL) n/a n/a 999 10.0 Rep Stress Incr YES WB 0.15 Horiz(TL) 0.00 7 n/a n/a 0.0 Code IRC2021/TPI2014 Matrix-MSH 10.0 Weight: 50 lb FT = 20%TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate 2x4 SP No.2 2x4 SP No.2 DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 2x4 SP No.3 Cs=1.00; Ct=1.10 4) Unbalanced snow loads have been considered for this 2x4 SP No.3 desian. Gable requires continuous bottom chord bearing. 5) Structural wood sheathing directly applied or 6) Gable studs spaced at 4-0-0 oc. 6-0-0 oc purlins, except end verticals. 7) This truss has been designed for a 10.0 psf bottom Rigid ceiling directly applied or 10-0-0 oc chord live load nonconcurrent with any other live loads. \* This truss has been designed for a live load of 20.0psf bracing. 8) 1 Row at midpt 4-5 on the bottom chord in all areas where a rectangle 1=9-6-6, 5=9-6-6, 6=9-6-6, 7=9-6-6 3-06-00 tall by 2-00-00 wide will fit between the bottom Max Horiz 1=249 (LC 14) chord and any other members, with BCDL = 10.0psf. Max Uplift 1=-63 (LC 12), 5=-30 (LC 16), Provide mechanical connection (by others) of truss to 9) 6=-134 (LC 14), 7=-100 (LC 14) bearing plate capable of withstanding 63 lb uplift at joint Max Grav 1=179 (LC 14), 5=218 (LC 5), 1, 30 lb uplift at joint 5, 134 lb uplift at joint 6 and 100 lb 6=508 (LC 5), 7=308 (LC 24) uplift at joint 7. (lb) - Maximum Compression/Maximum LOAD CASE(S) Standard Tension 1-2=-433/212, 2-3=-317/158, 3-4=-156/83, 4-5=-171/114 1-7=-51/14, 6-7=-3/5, 5-6=-3/5 3-6=-393/289, 2-7=-253/183 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone Vanananan and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-2-1, Exterior(2R) 5-2-1 to 9-4-15 zone;C-C for SEAL members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 036322 Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1. G mm July 11,2025 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall

bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLC2	Valley	1	1	Job Reference (optional)	174832151

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:45 ID:BehB56cngL4GW6cf?kYJVpyzBGA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_33_Figure_5.jpeg)

Scale = 1:42.4

Leading		(20)	Sussing	2.0.0				DEEL	in	(10.0)	1/104	1./4		
		(psi) 20.0	Plate Grin DOI	2-0-0			0 35	Vert(LL)	n/a	(100)	n/a	aga	MT20	244/190
Snow (Pf)		20.0	Lumber DOI	1.15		BC	0.00	Vert(TL)	n/a	-	n/a	999	WIT20	244/130
TCDL		10.0	Rep Stress Incr	YES		WB	0.11	Horiz(TL)	0.00	4	n/a	n/a		
BCLL		0.0*	Code	IRC2021/	TPI2014	Matrix-MP	••••							
BCDL		10.0											Weight: 42 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No. 2x4 SP No. 2x4 SP No. 2x4 SP No. 2x4 SP No. Structural v 6-0-0 oc pu Rigid ceilin bracing. (size) Max Horiz Max Uplift Max Grav	2 2 3 3 vood shea rrlins, exc g directly l=8-4-0, 4 l=224 (LC l=-29 (LC l=-165 (LC j=554 (LC	athing directly applied xept end verticals. applied or 10-0-0 oc =8-4-0, 5=8-4-0 ; 14) 16), 5=-165 (LC 14) ; 26), 4=201 (LC 5), ; 5)	5) 6) 7) 8) or 9) LOA	Gable require Gable studs s This truss has chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Provide mech bearing plate 4 and 165 lb AD CASE(S)	is continuous botto paced at 4-0-0 oc. been designed fo d nonconcurrent w as been designed fo chord in all areas y 2-00-00 wide will y other members, v uanical connection capable of withstau uplift at joint 5. Standard	orn a 10.0 ith any for a liv where fit betw with BC (by oth nding 2	d bearing. ) psf bottom other live loa e load of 20.0 a rectangle veen the bottt DL = 10.0psf ers) of truss t 9 lb uplift at j	ds. Dpsf om o ooint					
FORCES	(lb) - Maxin	num Com	pression/Maximum											
TOP CHORD BOT CHORD WEBS	1-2=-337/1 1-5=-96/16 2-5420/3	79, 2-3=-´ 2, 4-5=0/0	157/78, 3-4=-163/119 )											
NOTES	2 0= 420/0	10												
1) Wind: ASC		-120mph	(2 cocond quet)											
<ol> <li>Wind: Association of the second second</li></ol>	mph; TCDL= Enclosed; MV Exterior(2E) 0- ixterior(2E) 3 and forces & OL=1.60 platt igned for wind studs expose ard Industry ( qualified buil CE 7-16; Pr=2( =1.15); Pf=2( ); Is=1.0; Rot Ct=1.10 ad snow loads	6.0psf; BC VFRS (en -0-5 to 3-C -11-10 to MWFRS i e grip DO J loads in d to wind Gable Enc ding desig 20.0 psf (L ugh Cat B s have be	(D)L=6.0psf, h=25ft; C velope) exterior zone )-5, Interior (1) 3-0-5 i 8-2-9 zone; C-C for for reactions shown; L=1.60 the plane of the truss (normal to the face), d Details as applicable ner as per ANSI/TPI oof LL: Lum DOL=1. m DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for this	cat. .o .e, 1. 15							Marin Marin		SEAL OSESS SEAL SEAL SEAL SEAL SEAL SEAL SEAL	

July 11,2025

![](_page_33_Picture_9.jpeg)

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Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLC3	Valley	1	1	Job Reference (optional)	174832152

7-1-10

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Jul 11 07:18:45 ID:0o2TM9gXFBrQE13pL?fjk4yzBG4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

8

2x4 II 3

Page: 1

2x4 II 11-9 Ģ 5-11. 2 ہٰ. 12 10 Г 1 4 ò 5 2x4 🛛 2x4 🧳 2x4 II 7-1-10 (psf) Spacing 2-0-0 CSI DEFL in l/defl L/d PLATES (loc) 20.0 Plate Grip DOL 1.15 TC 0.36 Vert(LL) n/a n/a 999 MT20 BC 20.0 Lumber DOL 1 15 0.12 999 Vert(TL) n/a n/a . 10.0 **Rep Stress Incr** YES WB 0.09 Horiz(TL) 0.00 4 n/a n/a 0.0 Code IRC2021/TPI2014 Matrix-MP 10.0 Weight: 35 lb Gable studs spaced at 4-0-0 oc. 6) This truss has been designed for a 10.0 psf bottom 7) chord live load nonconcurrent with any other live loads. \* This truss has been designed for a live load of 20.0psf 8) on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members. or 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 4 and 149 lb uplift at joint 5. LOAD CASE(S) Standard 91, 4-5=0/0 2-5=-383/290  $\cap$ WITTELL CONTRACTOR

> mm July 11,2025

GRIP

244/190

FT = 20%

![](_page_34_Picture_6.jpeg)

G

SEAL

036322

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Scale = 1:38.1

Loading

TCLL (roof)

Snow (Pf)

TCDL

BCLL

BCDL

LUMBER		
TOP CHORD	2x4 SP N	0.2
BOT CHORD	2x4 SP N	0.2
WEBS	2x4 SP N	0.3
OTHERS	2x4 SP N	0.3
BRACING		
TOP CHORD	Structural	wood sheathing directly applied
	6-0-0 oc p	ourlins, except end verticals.
BOT CHORD	Rigid ceili	ing directly applied or 10-0-0 oc
	bracing.	
REACTIONS	(size)	1=7-1-10, 4=7-1-10, 5=7-1-10
	Max Horiz	1=198 (LC 14)
	Max Uplift	4=-44 (LC 14), 5=-149 (LC 14)
	Max Grav	1=121 (LC 26), 4=198 (LC 20),
		5=467 (LC 20)
FORCES	(lb) - Max	imum Compression/Maximum
	Tension	
TOP CHORD	1-2=-303/	/163, 2-3=-154/81, 3-4=-167/112
BOT CHORD	1-5=-73/9	1 4-5=0/0

#### CHORD WEBS

- NOTES
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face). see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLC4	Valley	1	1	Job Reference (optional)	174832153

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:45 ID:MmrMPskg4jTiKoxm8YEuR8yzBG?-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1

![](_page_35_Figure_5.jpeg)

5-11-3

Scale = 1:33.8

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2021/7	TPI2014	CSI TC BC WB Matrix-MP	0.34 0.12 0.10	<b>DEFL</b> Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 28 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Structural wood sheat 5-11-3 oc purlins, ex Rigid ceiling directly bracing. (size) $1=5-11-3$ , Max Horiz $1=171$ (LC 5=-133 (LC Max Uplift $1=-31$ (LC 5=-413 (LC (Max Grav $1=120$ (LC 5=-430 (LC (Ib) - Maximum Com Tension 1-2=-330/170, 2-3=-7 1-5=-34/11, 4-5=0/0 2-5=-414/331 CE 7-16; Vult=130mph imph; TCDL=6.0psf; BC Enclosed; MWFRS (en Exterior(2E) zone; C-C fr S for reactions shown; L 1-60 igned for wind loads in studs exposed to wind lard Industry Gable Enc Qualified building desig CE 7-16; Pr=20.0 psf (LC =1.15); Pf=20.0 psf (LC =1.10; Rough Cat B Ct=1.10	athing directly applie coept end verticals. applied or 10-0-0 oc 4=5-11-3, 5=5-11-3 214) 12), 4=-61 (LC 14), C 14) 214), 4=199 (LC 20) 20) pression/Maximum 155/80, 3-4=-165/12- (3-second gust) CDL=6.0psf; h=25ft; velope) exterior zono or members and forc umber DOL=1.60 pl the plane of the trus (normal to the face), d Details as applicab gner as per ANSI/TP oof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi	5) ( 6) ( 7) - 8) - 9)   1 LOA 4 Cat. e- res ate s le, 1.1. 5	Gable require Gable studs s This truss has chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Provide mect bearing plate data and an Provide mect bearing plate <b>D CASE(S)</b>	es continuous bot spaced at 4-0-0 c s been designed d nonconcurrent as been designed y 2-00-00 wide w y other members nanical connectio capable of withs at joint 1 and 130 Standard	tom chorr rc. for a 10.0 with any d for a liv as where n (by oth tanding 6 3 lb uplift	d bearing. ) psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t 1 lb uplift at ji at joint 5.	ds. Dpsf om oint			2	SEA 0363	ROUTE L 22 LBERNIN	Mannunnin
design.												111111	mm,	

# July 11,2025

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Engineering By A MiTek Affiliate 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLC5	Valley	1	1	Job Reference (optional)	174832154

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:46 ID:f6m?tGq3QtLjgt\_72WsXDcyzBFu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_36_Figure_5.jpeg)

Scale = 1:31.6

4)

5)

design.

Unbalanced snow loads have been considered for this

Provide adequate drainage to prevent water ponding.

Plate Offsets (X, Y): [2:0-2-8,0-0-3]

Loading	(psf) 20.0	Spacing Plate Grip DOI	2-0-0		CSI TC	0.52	DEFL Vert(LL)	in n/a	(loc)	l/defl n/a	L/d 999	PLATES	<b>GRIP</b> 244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.34	Vert(TL)	n/a	-	n/a	999		211/100
TCDL	10.0	Rep Stress Incr	YES		WB	0.00	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC202	1/TPI2014	Matrix-MR								
BCDL	10.0											Weight: 19 lb	FT = 20%
LUMBER			6)	Gable requir	es continuous bo	ottom chor	d bearing.						
TOP CHORD	2x4 SP No.2		7)	Gable studs	spaced at 4-0-0	OC.							
BOT CHORD	2x4 SP No.2		8)	This truss ha	is been designed	d for a 10.0	) psf bottom						
WEBS	2x4 SP No.3		0)	chord live loa	ad nonconcurren	it with any	other live loa	ds.					
BRACING			9)	on the hottor	n chord in all are	eu ior a liv	e load of 20.0 a rectangle	psi					
TOP CHORD	4-8-13 oc purlins, e	eathing directly appli except end verticals,	ed or and	3-06-00 tall I chord and a	by 2-00-00 wide v by other member	will fit betw s.	veen the botto	om					
BOT CHORD	Rigid ceiling directly bracing.	y applied or 10-0-0 o	c 10	) Provide med bearing plate	hanical connection connectication connecticaticaticaticaticaticaticaticaticatic	on (by oth standing 5	ers) of truss to 6 lb uplift at jo	o oint					
REACTIONS	(size) 1=4-8-13 Max Horiz 1=107 (L Max Uplift 4=-56 (L0 Max Gray 1=261 (L	5, 4=4-8-13 C 14) C 14) C 37) 4−212 (I C 37	1 <i>*</i>	<ol> <li>4.</li> <li>1) Graphical puot</li> <li>or the orienta</li> <li>bottom chore</li> </ol>	Irlin representation ation of the purlin d.	on does no along the	ot depict the s top and/or	ize					
FORCES	(lb) - Maximum Con Tension	npression/Maximum	) L(	DAD CASE(S)	Standard								
TOP CHORD BOT CHORD	1-2=-322/1, 2-3=-85 1-4=-162/278	5/49, 3-4=-139/117											
NOTES													
<ol> <li>Wind: ASt Vasd=103 II; Exp B; and C-C E to 3-7-15, members Lumber D</li> <li>Truss des only. For see Stanc or consult</li> <li>TCLL: AS Plate DOI DOL=1.15 Cs=1.00;</li> </ol>	CE 7-16; Vult=130mpl 3mph; TCDL=6.0psf; E Enclosed; MWFRS (e Exterior(2E) 0-0-5 to 3: Exterior(2E) 3-7-15 to and forces & MWFRS 0DL=1.60 plate grip DC signed for wind loads ir studs exposed to wind dard Industry Gable Er t qualified building des CE 7-16; Pr=20.0 psf (L 5); Is=1.0; Rough Cat I Ct=1.10	n (3-second gust) CDL=6.0psf; h=25ft nvelope) exterior zor 0-5, Exterior(2R) 3- 0 4-7-6 zone;C-C for for reactions shown DL=1.60 In the plane of the trud d (normal to the face id Details as application igner as per ANSI/TI (roof LL: Lum DOL= Lum DOL=1.15 Plate B; Fully Exp.; Ce=0.5	; Cat. ne 0-5 x; ss ), ble, PI 1. 1.15 9;							C. Million		SEA 0363	ROWNER WITH
<ol><li>Unbalance</li></ol>	ed snow loads have be	een considered for t	his								1	10	BEN

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G minim July 11,2025

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLE1	Valley	1	1	Job Reference (optional)	174832155

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:46 ID:DTBTk2iEBbrKjDFXxKE1mCyzBJw-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

![](_page_37_Figure_4.jpeg)

#### Scale = 1:46.7

Plate Offsets (X, Y): [7:0-2-8,0-1-4]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202	1/TPI2014	CSI TC BC WB Matrix-MSH	0.33 0.16 0.22	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 5	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 72 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood sh 6-0-0 oc purlins. Rigid ceiling directl bracing. (size) 1=16-2-3 8=16-2-3 Max Horiz 1=-154 ( Max Uplift 1=-22 (L 9=-177 ( Max Grav 1=126 (L 6=496 (L 9=496 (L	eathing directly applie y applied or 6-0-0 oc 3, 5=16-2-3, 6=16-2-3 3, 9=16-2-3 LC 10) C 10), 6=-174 (LC 15 LC 14) .C 25), 5=105 (LC 21 .C 6), 8=468 (LC 24), .C 5)	3) ed or 5) 3, 6) 7) 5), 8) ), 9)	Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. Gable requirin Gable studs This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar	ed for wind loads ids exposed to wird d Industry Gable E alified building des 7-16; Pr=20.0 psf (15); Pf=20.0 psf (15);	in the pla ind (norm ind Deta signer as ((roof LL (Lum DC B; Fully been cor c. or a 10.0 with any I for a liv s where II fit betw with Bc	ane of the tru al to the face ils as applica s per ANSI/TI :: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 usidered for the d bearing. D psf bottom other live loa e load of 20.0 a rectangle yeen the bott DL = 10.0psi	ss ), ble, PI 1. 1.15 2; his ds. Dpsf						
FORCES	(lb) - Maximum Co Tension 1-2=-149/216, 2-3=	mpression/Maximum 131/167, 3-4=-131/1	10 146,	) Provide mec bearing plate 1, 177 lb upli	hanical connection capable of withsta ft at joint 9 and 17	n (by oth anding 2 4 lb uplif	ers) of truss t 2 lb uplift at j t at joint 6.	o oint						
BOT CHORD WEBS NOTES 1) Unbalance	4-5=-123/175 1-9=-102/134, 8-9= 5-6=-102/125 3-8=-279/0, 2-9=-3 ed roof live loads hav	102/125, 6-8=-102/1 87/212, 4-6=-387/211 e been considered fo	125, <b>LC</b> 1	DAD CASE(S)	Standard	·				4		ORTH CA	ROUT	
Wind: AS( Vasd=103 II; Exp B; and C-C E 5-1-6, Ext 13-2-8, Ex and right e C for men shown; Lu	 CE 7-16; Vult=130mp mph; TCDL=6.0psf; I Enclosed; MWFRS (e Exterior(2E) 0-0-5 to 3 erior(2R) 5-1-6 to 11- tterior(2E) 13-2-8 to 1 exposed ; end vertica abers and forces & M umber DOL=1.60 plate	h (3-second gust) 3CDL=6.0psf; h=25ft; nvelope) exterior zor 6-0-5, Interior (1) 3-0-6 1-6, Interior (1) 11-1-6 6-2-8 zone; cantileve I left and right expose WFRS for reactions e grip DOL=1.60	Cat. ne 5 to 6 to r left rd;C-							1111111111		SEA 0363	ER ILBERT	annun anna anna anna anna anna anna ann

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BC2E Building Component Schut beformation, available from the Structure Building Component Advanciation (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

![](_page_37_Picture_10.jpeg)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLE2	Valley	1	1	Job Reference (optional)	174832156

Scale = 1:42.3

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:46 ID:XFryJlebWm?dvpUHJx6YFyyzBHQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

![](_page_38_Figure_4.jpeg)

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202	21/TPI2014	CSI TC BC WB Matrix-MSH	0.33 0.11 0.12	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 5	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 59 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 1=13-9-6, 7=13-9-6, Max Horiz 1=130 (LC Max Uplift 1=-25 (LC 8=-151 (L Max Grav 1=115 (LC 6=443 (LC 8=445 (LC)	athing directly applied applied or 6-0-0 oc 5=13-9-6, 6=13-9-6, 8=13-9-6 C 11) (10), 6=-147 (LC 15), C 14) C 25), 5=77 (LC 29), C 20), 7=288 (LC 20), C 20)	3 1 or 5 6 7 8 9	<ul> <li>Truss design only. For stu see Standard or consult qu</li> <li>TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct=1 Unbalanced design.</li> <li>Gable requiri</li> <li>Gable studs</li> <li>This truss ha chord live loa</li> <li>* This truss ha on the bottor 3-06-00 tall b</li> </ul>	ed for wind load dis exposed to v d Industry Gable tailfied building of 7-16; Pr=20.0 pc Is=1.0; Rough C =1.10 snow loads hav es continuous b spaced at 4-0-0 is been designe ad nonconcurrer has been design no chord in all arr by 2-00-00 wide	Is in the pl wind (norm End Deta designer a cosf (roof Ll f (Lum DC Cat B; Fully e been cor oc. d for a 10. ht with any eed for a liv eas where will fit betw	ane of the tru ial to the face ils as applica s per ANSI/T .: Lum DOL= DL=1.15 Platu Exp.; Ce=0. nsidered for t d bearing. 0 psf bottom other live loa re load of 20. a rectangle veen the bott	uss able, PI 1. c1.15 e 9; his ads. Opsf					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	1	chord and ar 0) Provide mec bearing plate	ny other membe hanical connect e capable of with	rs. ion (by oth istanding 2	ers) of truss 25 lb uplift at	to joint					
TOP CHORD	1-2=-143/120, 2-3=- 4-5=-103/83	191/114, 3-4=-191/11	2,	1, 151 lb upli	ift at joint 8 and	147 lb upli	ft at joint 6.						
BOT CHORD	1-8=-47/113, 7-8=-4	7/85, 6-7=-47/85,	L	UAD CASE(S)	Standard								111.
WEBS	3-7=-206/0, 2-8=-37	4/193, 4-6=-374/191										WH CA	ROUL
NOTES											AN	R	2112
<ol> <li>Unbalance this design</li> </ol>	ed roof live loads have	been considered for								1	Sà	A STAND	Min

- tris design.
  Wind: ASCE 7-16; Vult=130mph (3-second gust)
  Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 2-11-0, Interior (1) 2-11-0 to 3-11-0, Exterior(2R) 3-11-0 to 9-11-0, Interior (1) 9-11-0 to 10-5-3, Exterior(2E) 10-5-3 to 13-5-3 zone; cantilever left and right exposed; end vertical left and
  - right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

![](_page_38_Picture_9.jpeg)

July 11,2025

SEAL 036322 MUUUUUU

Annua and and a start of the st

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLE3	Valley	1	1	Job Reference (optional)	174832157

Run: 8 73 S. Feb 19 2025 Print: 8 730 S. Feb 19 2025 MiTek Industries. Inc. Fri Jul 11 07:18:46 ID:XFryJlebWm?dvpUHJx6YFyyzBHQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

GRIP

244/190

FT = 20%

![](_page_39_Figure_4.jpeg)

6-0-0 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. **REACTIONS** (size) 1=11-4-10, 5=11-4-10, 6=11-4-10,

2x4 SP No.2

2x4 SP No.2

2x4 SP No.3

Scale = 1:40.6 Loading

TCLL (roof)

Snow (Pf)

LUMBER

OTHERS

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

TCDL

BCLL

BCDL

- 7=11-4-10, 8=11-4-10 Max Horiz 1=107 (LC 11) 1=-38 (LC 10), 5=-22 (LC 13), Max Uplift 6=-133 (LC 15), 8=-138 (LC 14) 1=76 (LC 25), 5=55 (LC 15), 6=438 Max Grav (LC 21), 7=252 (LC 20), 8=441 (LC 20) FORCES (Ib) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=-124/100, 2-3=-224/109, 3-4=-225/109, 4-5=-101/66 BOT CHORD 1-8=-30/70, 7-8=-23/70, 6-7=-23/70, 5-6=-35/70
- WEBS 3-7=-163/1, 2-8=-432/242, 4-6=-431/236 NOTES
- Unbalanced roof live loads have been considered for 1) this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 8-0-6, Exterior(2E) 8-0-6 to 11-0-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this 5) desian.
- 6) Gable requires continuous bottom chord bearing. 7)
  - Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads. 9)
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1, 22 lb uplift at joint 5, 138 lb uplift at joint 8 and 133 lb uplift at joint 6.
- LOAD CASE(S) Standard

![](_page_39_Figure_20.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLE4	Valley	1	1	Job Reference (optional)	174832158

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:46 ID:XFryJlebWm?dvpUHJx6YFyyzBHQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

GRIP

![](_page_40_Figure_4.jpeg)

Loading

Scale = 1:32.1

TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.41	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.16	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2	021/TPI2014	Matrix-MP								
BCDL	10.0		_									Weight: 34 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she: 8-11-13 oc purlins. Rigid ceiling directly bracing. (size) 1=8-11-13 Max Horiz 1=83 (LC Max Uplift 1=-57 (LC 4=-116 (L Max Grav 1=74 (LC (LC 21)	athing directly applie applied or 6-0-0 oc 3, 3=8-11-13, 4=8-11 11) 21), 3=-65 (LC 20), C 14) 20), 3=66 (LC 21), 4	ed or I-13 I=742	<ul> <li>4) TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct</li> <li>5) Unbalanced design.</li> <li>6) Gable requir</li> <li>7) Gable studs</li> <li>8) This truss I on the botton 3-06-00 tall li chord and at</li> <li>10) Provide mec bearing plate</li> </ul>	57-16; Pr=20.0 1.15); Pf=20.0 p Is=1.0; Rough 0 =1.10 snow loads hav es continuous h spaced at 4-0-0 as been design m chord in all an by 2-00-00 widd hanical connect e capable of wit	psf (roof LI ssf (Lum DC Cat B; Fully ve been con bottom choi 0 oc. ed for a 10. ent with any ned for a 10. reas where e will fit betv ers. tion (by oth hstanding f	: Lum DOL= DL=1.15 Plate Exp.; Ce=0.1 d bearing. 0 psf bottom other live loa e load of 20.1 a rectangle veen the bott ers) of truss 57 lb uplift at j	1.15 e) e); his ds. Dpsf om io					
TOROLO	Tension	pression/maximum		1, 65 lb uplif	t at joint 3 and 7 Standard	116 Ib uplift	at joint 4.						
TOP CHORD	1-2=-140/339, 2-3=-	139/348											
BOT CHORD	1-4=-262/187, 3-4=-2	262/187											
WEBS	2-4=-604/275												
NOTES													
<ol> <li>Unbalance this design</li> <li>Wind: ASC Vasd=103</li> <li>II; Exp B; I and C-C E to 5-7-9. E</li> </ol>	ed roof live loads have n. CE 7-16; Vult=130mph imph; TCDL=6.0psf; B( Enclosed; MWFRS (en ixterior(2E) 0-0-5 to 3-( ixterior(2E) 5-7-9 to 8-)	been considered for (3-second gust) CDL=6.0psf; h=25ft; velope) exterior zon 0-5, Exterior(2R) 3-C 7-9 zone; cantilever	Cat. le I-5 left							4		ORTH CA	ROLIN

C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 Truss designed for wind loads in the plane of the truss 3) only. For studs exposed to wind (normal to the face),

and right exposed ; end vertical left and right exposed;C-

(psf)

see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

![](_page_40_Picture_9.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Michael Component Advancement description (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLE5	Valley	1	1	Job Reference (optional)	174832159

Run: 8,73 S Feb 19 2025 Print: 8,730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:46 ID:XFryJlebWm?dvpUHJx6YFyyzBHQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

![](_page_41_Figure_3.jpeg)

Page: 1

![](_page_41_Figure_5.jpeg)

6-7-0

![](_page_41_Figure_6.jpeg)

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	<b>Spacing</b> Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202	1/TPI2014	CSI TC BC WB Matrix-MP	0.20 0.22 0.07	<b>DEFL</b> Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 24 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 6-7-0 oc purlins. Rigid ceiling directly bracing. (size) 1=6-7-0, 3 Max Horiz 1=-60 (LC Max Uplift 1=-5 (LC 2 (LC 14) Max Grav 1=102 (LC 4=461 (LC	athing directly appli applied or 6-0-0 oc 3=6-7-0, 4=6-7-0 : 12) 21), 3=-5 (LC 20), 4 2 20), 3=102 (LC 21 2 20)	5) 6) 7) 8) ed or 9) 61 1), LC	Unbalanced design. Gable requirin Gable studs This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar )) Provide mec bearing plate 5 lb uplift at j DAD CASE(S)	snow loads have b es continuous bott spaced at 4-0-0 or s been designed f ad nonconcurrent v has been designed n chord in all areas by 2-00-00 wide wi by other members. hanical connectior e capable of withsta oint 3 and 61 lb up Standard	been cor om chor c. or a 10.0 vith any for a liv s where Il fit betw a (by oth anding 5 vlift at joi	sidered for the d bearing. ) psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t Ib uplift at jo nt 4.	ds. Dpsf om int 1,						
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalance this design 2) Wind: ASC	(lb) - Maximum Com Tension 1-2=-88/190, 2-3=-84 1-4=-150/135, 3-4=- 2-4=-359/169 ed roof live loads have b. 2E 7-16; Vult=130mph	pression/Maximum 8/190 150/135 been considered fc (3-second gust)	or									WITH CA	Ro	

- Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 4) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

![](_page_41_Picture_11.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Michael Component Advancement description (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLE6	Valley	1	1	Job Reference (optional)	174832160

2-1-2

2-1-2

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:46 ID:?RPKW5fDG37UXz3Ttedno9yzBHP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

3-10-1

1-9-0

Page: 1

![](_page_42_Figure_5.jpeg)

![](_page_42_Figure_6.jpeg)

4-2-3

Scale = 1:24.9

-

-			1					-						
Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCLL		0.0*	Code	IRC202	I/TPI2014	Matrix-MP		,						
BCDL		10.0											Weight: 15 lb	FT = 20%
				5)	Linholoncod	snow loads have h		cidorod for t	hic					
	274 CD N	<u> </u>		5)	design	Show loads have b			115					
BOT CHORD	2x4 SP N 2x4 SP N	0.2		6)	Gable require	es continuous hotte	om chor	d bearing						
OTHERS	2x4 SF N 2x4 SP N	0.2		7)	Gable studs	spaced at 4-0-0 oc		a bearing.						
DRACING	284 SF IN	0.5		8)	This truss ha	s been designed fo	hra 10 (	) nsf hottom						
BRACING	0		- de la se allas a de sistema lla		chord live loa	ad nonconcurrent w	vith anv	other live loa	ds					
TOP CHORD	4-2-3 oc r	i wood snei Surlins	athing directly applie	ea or 9)	* This truss h	as been designed	for a liv	e load of 20.0	Opsf					
BOT CHORD	Rigid ceil	ina directly	applied or 6-0-0 oc		on the bottor	n chord in all areas	where	a rectangle						
BOT ONORD	bracing.	ing uncerty			3-06-00 tall b	y 2-00-00 wide wil	l fit betv	veen the botto	om					
REACTIONS	(size)	1=4-2-3, 3	3=4-2-3, 4=4-2-3	40	cnord and an	ly other members.	(by oth	oro) of truce t	-					
	Max Horiz	1=37 (LC	11)	10	) Provide med	nanical connection	(by oth	ers) or truss t	int 1					
	Max Uplift	1=-1 (LC	14), 3=-8 (LC 15), 4=	=-25	8 lb uplift at i	oint 2 and 25 lb up	lift at iai	nd upint at jo	init I,					
		(LC 14)				Office 3 and 25 lb up	int at jui	int <del>4</del> .						
	Max Grav	1=80 (LC	20), 3=80 (LC 21), 4	1=240 LC	DAD CASE(S)	Standard								
		(LC 20)												
FORCES	(lb) - Max	imum Com	pression/Maximum											
	I ension	7 0 0 70												
TOP CHORD	1-2=-72/7	1, 2-3=-12	///											
BUT CHURD	1-4=-62/7	0, 3-4=-62/	//0											
NOTES	2-4=-139/	09												
1) Unbalance	od roof live l	oode hovo	boon considered for	r										
this desig	n n n n n n n n n n n n n n n n n n n	Uaus nave	been considered for										minin	unin.
2) Wind: AS	 CE 7-16' Vu	lt=130mph	(3-second dust)										WAH CA	ROUL
Vasd=103	3mph: TCDL	=6.0psf: B(	CDL=6.0psf: h=25ft:	Cat.								1	R	
II: Exp B:	Enclosed: N	WFRS (en	velope) exterior zon	e								~	OFES	10X Vis
and C-C	Exterior(2E)	zone; canti	ilever left and right									Ì	1 P	1 Kills
exposed ;	end vertica	l left and rig	ght exposed;C-C for								1		x ~	
members	and forces a	& MWFRS	for reactions shown;	;							-		C L V	n 1 2 -
Lumber D	OL=1.60 pla	ate grip DO	L=1.60								=		SEA	L : -
3) Truss des	signed for wi	nd loads in	the plane of the trus	SS							1	:	0363	22 : =
only. For	studs expos	sed to wind	(normal to the face)	),							-			
see Stand	dard Industry	Gable End	d Details as applicat	ole,									Sec. 1.	- 1 S
or consult	qualified bu	lilding desig	gner as per ANSI/TF	41.								- 1	N. ENO	-ERIX S
4) ICLL: AS	UE /-16; Pr	=20.0 psf (1	root LL: LUM DOL=1	1.15								1	S, GIN	EF. AN
	L = 1.15); PT = 1.15]; PT =	20.0 pSI (Ll	UIII DOL=1.15 Plate									1	CA C	BEIN
DOL=1.1	0), IS=1.0; K Ct−1 10	ougn Cat B	s, Fully Exp.; Ce=0.9	,									11, A. C	11L IIII
05=1.00,	0.=1.10												<i></i>	1111
													July	/ 11,2025
													-	

![](_page_42_Picture_9.jpeg)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent outlapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLG1	Valley	1	1	Job Reference (optional)	174832161

#### Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:46 ID:aURQiS0qpwcnaEzI3\_tgZTyjNsg-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

![](_page_43_Figure_3.jpeg)

7.14z.1C?f

![](_page_43_Figure_5.jpeg)

7-4-9

Scale	1 = 1	:29.	1

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC202	1/TPI2014	CSI TC BC WB Matrix-MP	0.25 0.25 0.08	<b>DEFL</b> Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 25 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shee 7-2-12 oc purlins. Rigid ceiling directly bracing. (size) 1=7-4-9, 3 Max Horiz 1=54 (LC Max Uplift 1=-10 (LC 4=-56 (LC Max Grav 1=102 (LC 4=518 (LC	athing directly applied applied or 6-0-0 oc 3=7-4-9, 4=7-4-9 11) : 21), 3=-24 (LC 20), : 14) : 20), 3=67 (LC 21), : 21)	4) 5) d or 6) 7) 8) 9)	TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. Gable requir Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar ) Provide mec bearing plate	5 7-16; Pr=20.0 1.15); Pf=20.0 p Is=1.0; Rough ( =1.10 snow loads hav es continuous b spaced at 4-0-0 is been designe ad nonconcurre has been design n chord in all ar by 2-00-00 wide hanical connect a canable of with	psf (roof LL sf (Lum DC Cat B; Fully ve been cor bottom chor 0 oc. ad for a 10.0 nt with any need for a 10.0 reas where e will fit betw ers. tion (by oth hstanding 1	L: Lum DOL= JL=1.15 Plate Exp.; Ce=0.9 asidered for th d bearing. D psf bottom other live load e load of 20.0 a rectangle veen the botto ers) of truss t 0 b uplift at i	1.15 ; his ds. Dpsf om o					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	LC	1 and 24 lb ι AD CASE(S)	uplift at joint 3. Standard	0							
TOP CHORD BOT CHORD WEBS	1-2=-96/237, 2-3=-8 1-4=-197/126, 3-4=- 2-4=-413/176	3/237 197/126	_	(•)									
<ol> <li>Unbalance this design</li> <li>Wind: ASC Vasd=103 II; Exp B; I and C-CE to 3-8-11,</li> </ol>	ed roof live loads have CE 7-16; Vult=130mph imph; TCDL=6.0psf; BC Enclosed; MWFRS (en ixterior(2E) 0-0-6 to 3-0 Exterior(2E) 3-8-11 to	been considered for (3-second gust) CDL=6.0psf; h=25ft; ( velope) exterior zone 0-6, Exterior(2R) 3-0- 6-11-9 zone; cantilev	Cat. e •6 ver							4		ORTH CA	ROUT

- left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  3) Truss designed for wind loads in the plane of the trus
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

SEAL 036322 July 11,2025

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![](_page_43_Picture_12.jpeg)

Job	Truss	Truss Type	Qty	Ply	896 Serenity-Roof-B328 A CP GRH	
25070014-01	VLG2	Valley	1	1	Job Reference (optional)	174832162

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Fri Jul 11 07:18:46 ID:?Kf\_vIGN638x\_JV8EBEMMhyjNsM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

![](_page_44_Figure_3.jpeg)

![](_page_44_Figure_4.jpeg)

818 Soundside Road Edenton, NC 27932

Page: 1

1-8-1 1-11-12 0-0-4

![](_page_44_Figure_6.jpeg)

5-10-9

Scale = 1:24.9

Loading		(psf)	Spacing	2-0-0		CSI	0.14	DEFL	in n/a	(loc)	l/defl	L/d	PLATES	<b>GRIP</b>
Spow (Pf)		20.0		1.15		BC	0.14	Vert(LL)	n/a	-	n/a	000	101120	244/190
		10.0	Ren Stress Incr	YES		WB	0.10	Horiz(TL)	0.00	4	n/a	n/a		
BCLL		0.0*	Code	IRC2021/1	TPI2014	Matrix-MP	0.00	110112(112)	0.00		n/a	11/0		
BCDL		10.0											Weight: 20 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural w 5-10-9 oc pu Rigid ceiling bracing. (size) 1: Max Horiz 1: Max Uplift 1: Max Grav. 1	2 2 3 3 4 directly =5-10-9, =42 (LC 4 (LC 4 (LC 6 (LC 96 (LC	athing directly applied applied or 6-0-0 oc 3=5-10-9, 4=5-10-9 11) 14), 3=-11 (LC 15), 4 20), 3=96 (LC 21), 4-	5) ( 6) ( 7) ( 8) - 9) ( 10) ( =-35 - -377 LOA	Unbalanced s design. Gable require Gable studs s This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and an Provide mech bearing plate 11 lb uplift at AD CASE(S)	snow loads have be as continuous botto spaced at 4-0-0 oc s been designed fo d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. nanical connection capable of withsta joint 3 and 35 lb up Standard	een cor om chor or a 10.( vith any for a liv where l fit betw (by oth nding 4 plift at jo	sidered for th d bearing. ) psf bottom other live loa e load of 20.C a rectangle veen the botto ers) of truss t lb uplift at joi jint 4.	nis ds. )psf om o int 1,					
FORCES	(lb) Mavim	=96 (LC _C 20)	20), 3=90 (LC 21), 4	=377										
TOP CHORD BOT CHORD WEBS 1) Unbalanc this desig 2) Wind: AS Vasd=103 II; Exp B; and C-C F exposed ; members Lumber D 3) Truss des only. For see Stanc or consult 4) TCLL: AS Plate DOI DOL=1.15 Cs=1.00;	Tension Tension 1-2=-95/154 1-4=-132/10 2-4=-284/12 red roof live loa n. CE 7-16; Vult= 3mph; TCDL=6 Enclosed; MW Exterior(2E) zo ; end vertical le and forces & M DOL=1.60 plate signed for wind studs exposed dard Industry G t qualified build SCE 7-16; Pr=2 L=1.15; Pf=20 5); Is=1.0; Roug Ct=1.10	, 2-3=-99 1, 3-4=- 6 ds have 130mph .0psf; BC FRS (en ne; canti ft and rig /WFRS ' grip DO loads in t to wind iable Enc ing desig 0.0 psf (L gh Cat B	5/154 132/101 been considered for (3-second gust) CDL=6.0psf; h=25ft; ( velope) exterior zone lever left and right ht exposed;C-C for for reactions shown; L=1.60 the plane of the trus; (normal to the face), d Details as applicabl gner as per ANSI/TPI roof LL: Lum DOL=1. Jm DOL=1.15 Plate ; Fully Exp.; Ce=0.9;	Cat. 3 e, 1. 15							And the second sec		SEA 0363	L 22 L L B F F R F R F R F R F R F R F R F R F R

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![](_page_45_Figure_0.jpeg)